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List of Abbreviations used for the Names of Publications, Societies, and Public Bodies.

Aarsh. = Aarshefter.
Abh. = Abhandlungen.
Abs. = Abstracts.
Acad. = Academy.
Actes = *also* Verh.
Afh. = Afhandlingar.
Agr. = Agriculture.
Allgem. = Allgemeine.
An. = Anales.
Ann. = Annals, Annuaire, Annual, etc.
Anthr. = Anthropologie, etc.
Anz. = Anzeiger.
Arch. = Archiv, Archives.
Archæol. = Archæologist, Archæology, etc.
Årsskr. = Årsskrift.
Assoc. = Association.
Austral. = Australia, etc.
Balk. = Balkanique.
Beitr. = Beiträge.
Ber. = Bericht, Berichte.
Berg. = Bergwesen.
Bibl. = Biblical.
Biol. = Biological.
Biom. = Biometry.
Bol. = Boletin, Boletim.
Boll. = Bollettino.
Bot. = Botanical.
Bull. = Bulletin.
Bur. = Bureau.
Centralbl. = Centralblatt.
Chem. = Chemical.
Coll. = Colliery, College.
Com. = Comitato, etc.
Comm. = Commissão, etc.
Conch. = Conchology, etc.
Congr. = Congress.
C.-R. = Comptes-rendus.
Denkschr. = Denkschriften.
Dir. = Direcção, etc.
Earthq. = Earthquake.
Engin. = Engineering, Engineers.
Erdk. = Erdkunde.
Erläut. = Erläuterungen.
F. C. = Field-Club.
Festschr. = Festschrift.
Földt. = Földtani.
Fom. = Fomento.
Foren. = Forening.
Förh. = Förhandlingar.
Geogn. = Geognostische.
Geogr. = Geographical.
Geol. = Geological, Geologist.
Gesch. = Geschichte.
Gesellsch. = Gesellschaft.
Handl. = Handlingar.
Helv. = Helvétique.
Hist. = History.
Hofmus. = Hofmuseum.
Hütt. = Hüttenwesen, etc.
Idrogr. = Idrografico.
Industr. = Industrial.
Inst. = Institute, Institution.
Izv. = Izvestia.
Jaarb. = Jaarboek.
Jahrb. = Jahrbuch.
Jahresb. = Jahresbericht.
Jahresh. = Jahreshefte.
Journ. = Journal.
K. = Königlich, Kaiserlich, etc.
Közl. = Közlöny.
Kryst. = Krystallographie.
Landesanst. = Landesanstalt.
Landesd. = Landesdurchforschung.
Lefnadst. = Lefnadsteckningar.
Lingust. = Lingustica.
Linn. = Linnean, etc.
Lit. = Literary.
Mag. = Magazine.
Malacol. = Malacological, etc.
Mater. = Materialien, Matériaux.
Math. = Mathematisch, etc.
M. E. = Mining Engineers.
Med. = Medical, etc.

Meddel. = Meddelanden, Meddelelser.
Mem. = Memoirs, etc.
Met. = Meteorological.
Metall. = Metallurgy.
Micr. = Microscopical.
Mijnw. = Mijnwezen.
Min. = Mineralogy, Mining, etc.
Minist. = Ministerio, etc.
Monogr. = Monographs.
Mus. = Museum, etc.
N. = Neues, New, etc.
Nac. = Nacional.
Nat. = National, Natural.
Naturf. = Naturforschend.
Naturgesch. = Naturgeschichte.
Naturh. = Naturhistorisch.
Naturw. = Naturwissenschaftlich.
Ned. O.I. = Nederlandsch Oost-Indië.
Notizbl. = Notizblatt.
Nouv. = Nouveau.
N.S. = Nova Scotia.
N.Z. = New Zealand.
Observ. = Observatoire, etc.
Öfvers. = Öfversigt.
Overs. = Oversigt.
Palæont. = Palæontographical, etc.
Petr. = Petrography, etc.
Phil. = Philosophical.
Philom. = Philomathique.
Photogr. = Photographical.
Phys. = Physical, etc.
Proc. = Proceedings.
Proc.-verb. = Procès-verbaux.
Prof. = Professional.
Progr. = Progress.
Publ. = Publications.
Q. = Quarterly.
R. = Royal, Real, Reale, etc.
Rass. = Rassegna.
Rec. = Records.
Reliq. = Reliquary.
Rendic. = Rendiconti.
Rep. = Report, etc.
Rev. = Revue.
Riv. = Rivista.
Rozpr. = Rozprawy.
S. A. = South Africa.
Samml. = Sammlungen.
Sav. = Savant, etc.
Schr. = Schriften.
Schw. = Schweizer, etc.
Sci. = Science, Scientific, etc.
Selsk. = Selskab.
Senckenb. = Senckenbergisch.
Serv. = Service, etc.
Sitz. = Sitzungsberichte.
Smiths. = Smithsonian.
Soc. = Society, etc.
Summ. = Summary.
Surv. = Survey.
Tosc. = Toscana.
Trans. = Transactions, etc.
Umiej. = Umiejetności.
Undersög. = Undersögelse.
Undersökn. = Undersökning.
Univ. = University, etc.
Ver. = Verein.
Verh. = Verhandlungen.
Vidensk. = Videnskab, etc.
Wetterau. = Wetterauisch.
Zap. = Zapiski.
Zeitschr. = Zeitschrift.
Zool. = Zoology, etc.

EXAMPLES OF ABBREVIATIONS OF THE NAMES OF SOCIETIES AND PUBLIC BODIES.

Acad. Cæsarea Leopoldino-Carolina. Academia Cæsarea Leopoldino-Carolina Naturæ Curiosorum. Halle.
Acad. Stanislas. Académie de Stanislas. Nancy.
Akad. Umiej. Krakow. Akademii Umiejetności. Cracow.
Allgem. schw. Gesellsch. Naturw. Allgemeine schweizerische Gesellschaft für die gesammten Naturwissenschaften. Geneva, Zürich, &c.
Am. Acad. Arts & Sci. American Academy of Arts & Sciences. Boston (Mass.).
Am. Geol. American Geologist. Minneapolis (Minn.).
Am. Inst. M. E. American Institute of Mining Engineers. New York.
Am. Mus. Nat. Hist. N.Y. American Museum of Natural History. New York.
Am. Nat. American Naturalist. Boston (Mass.).
Analyst. Analyst (Society of Public Analysts). London.
Ann. Géogr. Paris. Annales de Géographie. Paris.
Ann. géol. Pénins. balk., Belgrade. Annales géologiques de la Peninsule balkanique. Belgrade.
Ann. idrogr. Rome. Annali idrografici. Rome.
Ann. Sci. nat. (Zool. & Palé.). Annales des Sciences naturelles: Zoologie & Paléontologie. Paris.
Arch. f. Anthr. & Geol. Schleswig-Holsteins. Archiv für Anthropologie & Geologie Schleswig-Holsteins & der benachbarten Gebiete. Kiel.
Arch. néerland. Sci. Archives des Sciences exactes & naturelles, publiées par la Société hollandaise des Sciences à Haarlem. La Haye.
Arch. Sci. phys. et nat. Genève. Archives des Sciences physiques & naturelles. Geneva.

Assoc. franç. Av. Sci. Association française pour l'Avancement des Sciences. Paris.

Austral. Inst. M. E. Australasian Institute of Mining Engineers. Melbourne (Vict.).

Austral. Mus. Australian Museum. Sydney (N.S.W.).

Badisch. geol. Landesanst. Grossherzoglich badische geologische Landesanstalt. Heidelberg.

Beitr. Geophys. Leipzig. Beiträge zur Geophysik. Leipzig.

Beitr. Paläont. Oesterr.-Ung. Beiträge zur Paläontologie & Geologie Œsterreich-Ungarns & des Orients. Vienna.

Berg- hütt. Jahrb. Wien. Berg- & hüttenmännisches Jahrbuch der kaiserlich-königlichen Bergakademien zu Leoben & Přibram & der königlich-ungarischen Bergakademie zu Schemnitz. Vienna.

Berwicks. Nat. Club. Berwickshire Naturalists' Club. Alnwick.

Biol. Soc. Washington. Biological Society of Washington. Washington (D.C.).

Bristol Mus. Bristol Museum. Bristol.

Brit. Assoc. Waterworks Eng. British Association of Waterworks Engineers. London.

Canad. Rec. Sci. Canadian Record of Science. (Natural History Society of Montreal.) Montreal.

Carolina (N.) Geol. Surv., Econ. Papers. North Carolina Geological Survey: Economic Papers. Raleigh (N. Car.).

Carte géol. Suisse. Carte géologique de la Suisse. Berne.

Centralbl. f. Min. Centralblatt für Mineralogie, Geologie & Palæontologie. Stuttgart.

Chem. News. Chemical News. London.

Coll. Guard. Colliery Guardian. London.

Coll. Sci. Tokyo. College of Science, Imperial University. Tokyo.

Colo. Coll. Studies. Colorado College Studies. Colorado Springs (Colo.).

Com. geol. España. Comision del Mapa geológico de España. Madrid.

Com. géol. Russie. Comité géologique. St. Petersburg.

Comm. geogr. e geol. São Paulo. Commissão geographica & geologica de São Paulo. São Paulo (Brazil).

Comm. géol. Finlande. Commission géologique de Finlande. Helsingfors.

Congrès Soc. sav. Paris. Congrès des Sociétés savantes. Paris.

Connect. Acad. Connecticut Academy of Arts & Sciences. New Haven (Conn.).

Cotteswold Nat. F. C. Cotteswold Naturalists' Field-Club. Gloucester.

Dan. geol. Undersög. Danmarks geologiske Undersögelse. Copenhagen.

Dansk geol. Fören. Dansk geologisk Förening. Copenhagen.

Dep. Geol. Indiana. Department of Geology & Natural Resources of Indiana. Indianopolis (Ind.).

Dep. Lands, W. Austral. Department of Lands & Surveys. Perth (W. A.).

Dep. Mines, N.S. Department of Mines of Nova Scotia. Halifax (N.S.).

Dep. Mines, N.S.W. Department of Mines, New South Wales. Sydney (N.S.W.).

Deutsch. geol. Gesellsch. Deutsche geologische Gesellschaft. Berlin.

Deutsch. u. österreich. Alpenver. Deutscher & österreichischer Alpenverein. Munich.

Deutsch. wissensch. Ver. Santiago. Deutscher wissenschaftlicher Verein zu Santiago. Valparaiso.

Devon. Assoc. Devonshire Association for the Advancement of Science, Literature, & Art. Plymouth.

Dir. Serv. geol. Portugal. Direccão dos Serviços geologicos de Portugal. Lisbon.

Earthq. Comm. Tokyo. Earthquake Investigation-Committee. Tokyo.

Eclogæ Geol. Helv. Eclogæ Geologicæ Helvetiæ. Lausanne.

Essex Nat. Essex Naturalist. London.

Földt. Közl. Földtani Közlöny. [Geological Magazine.] Budapest.

Geogn. Jahresh., München. Geognostische Jahreshefte. Munich.

Geogr. Abh., Wien. Geographische Abhandlungen, Wien. Vienna.

Geogr. Anz. Geographischer Anzeiger. See *Peterm. Mitth.*

Geol. palæont. Abh. Jena. Geologische & palæontologische Abhandlungen. Jena.

Geol. Univ. Cal. Department of Geology, University of California. Berkeley (Cal.).

Gesellsch. f. Erdk., Berlin. Gesellschaft für Erdkunde. Berlin.

Ind. Acad. Sci. Indiana Academy of Science. Indianopolis (Ind.).

Ind. Eng. Indian Engineering. Calcutta.

Inst. Mines & Forests Brit. Guiana. Institute of Mines & Forests. Georgetown (Demerara).

Jaarb. Mijnw. Ned. O.-Ind. Jaarboek van het Mijnwezen in Nederlandsch Oost-Indië. Amsterdam.

Jahrb. f. Berg- u. Hüttenw. Sachsen. Jahrbuch für das Berg- & Hüttenwesen im Königreiche Sachsen. Freiberg.

Journ. Biom. Journal of Biometry. London.

Lunds Univ. Årssk. Lunds Universitets Årsskrift. Lund.

Malacol. Soc. Malacological Society. London.

Manch. Lit. Phil. Soc. Manchester Literary & Philosophical Society. Manchester.

Meddel. Grönland. Meddelelser om Grönland, udgivne af Commissionen for Ledelsen af de geologiske & geographiske Undersögelser i Grönland. Copenhagen.

Meddel. Indust. Finland. Meddelanden från Industristyrelsen i Finland. Helsingfors.

Min. petr. Mitth. Mineralogische & petrographische Mittheilungen. Vienna.

Naturw. Landesd. Böhmen. Naturwissenschaftliche Landesdurchforschung von Böhmen. Prague.

Oberrhein. geol. Ver. Oberrheinischer geologischer Verein. Stuttgart.

Peterm. Mitth. Petermann's Mittheilungen. Gotha.

Reliq. & Ill. Archæol. The Reliquary & Illustrated Archæologist. London.

Rev. Cienc., Lima. Revista de Ciencias. Lima.

Rev. crit. Paléozool. Revue critique de Paléozoologie. Paris.

Roy. Inst. G. B. Royal Institution of Great Britain.

Russ.-k. min. Gesellsch. Russisch-kaiserliche mineralogische Gesellschaft. St. Petersburg.

Sec. géol. Cab. S. M. St. Pétersb. Section géologique du Cabinet de Sa Majesté. St. Petersburg.

Senckenb. naturf. Gesellsch. Senckenbergische naturforschende Gesellschaft. Frankfurt-am-Main.

Soc. cient. 'Ant. Alzate.' Sociedad científica 'Antonio Alzate.' Mexico.

Soc. franç. Min. Société française de Minéralogie. Paris.

Soc. helv. Sci. nat. Société helvétique des Sciences naturelles. See *Allgem. schw. Gesellsch.*

Soc. philom. Verdun. Société philomathique de Verdun. Verdun.

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Abd-el-Kuri I. (Gulf of Aden).—Blanford, W. T., 2; Kossmat, F., 1.
Aberdeen (Scotland).—Milne, Dr. J., 1; Ross, W. L., 1.
Aberfoil-Slate Group. — Cunningham-Craig, E. H., 1.
Abergavenny (Monmouth).—Dakyns, J. R., 3.
Abrasion-plains in Flysch-sandstone quarry, Kritzendorf.—Toula, F., 2.
Abruzzo (Italy).—Cassetti, M., 1; Segre, C., 1.
Abu Roash (Egypt).—Beadnell, H. J. L., 1; Dacqué, E., 1; Fourtau, R., 2.
Abyssinia (Africa).—Raisin, C. A., 1.
Acer.—Engelhardt, H., 1; Knowlton, F. H., 1.
Aceratherium.—Stromer, E. von, 3.
Acetabularia.—Squinabol, S., 1.
ACHIARDI, A. D'. [Obit.]—Anon. 1; Arcangeli, G., 1; Manasse, E., 2.
Acipenser.—Osborn, H. F., 4.
Acrocidaris & *Acrosalenia.*—Gauthier, V., 2.
Acrolepis.—Woodward, A. S., 10.
Acrotreta.—Walcott, C. D., 4.
Actæonella.—Dacqué, E., 1; Longhi, P., 1.
Actæonina.—Cossmann, M., 1.
Actinacis.—Felix, J., 1.
Actinoceras.—Crick, G. C., 1.
Actinocyclus.—Blake, W. P., 3.
Actinophynia.—Gauthier, V., 1.
Actinopteria & *Actinostroma.*—Weller, S., 2.
Adamawa (Central Africa).—Macco, A., 1.
Adamello Mt. (Lombardy).—Salomon, W., 1.
ADAMS, C. B. *See Obit.*, Seely, H. M., 1.
Adelocrinus.—Drevermann, F., 2.
Aden, Gulf of.—Kossmat, F., 1.
Adji Daria (Caspian Sea).—Ochsenius, C., 5.
Adriatic deposits, Italy.—Salmojraghi, F., 1.
Ægoceras.—Bistram, A. von, 1.
Æpyornis.—Grandidier, G., 2.
Æsculus.—Knowlton, F. H., 1.
Æthalion.—Sauvage, H. E., 2.
Africa, British East.—Prior, G. T., 2.
—— (Central).—Moore, J. E. S., 1.
——, German colonies in.—Macco, A., 1.
—— (N.E.).—Arsandaux, H., 1.
——, Portuguese Colonies. — Choffat, P., 2 & 3.
—— (S.).—Mennell, F. P., 2 & 3; Merrill, G. P., 3; Seward, A. C., 2 & 4; Toula, F., 3.
—— (W.).—Armas, M., 1; Oppenheim, P., 1.
——. *See also* Algeria, Cameroons, &c.
African & Persian fossil faunas.—Douvillé, H., 2.
Aganides, Agathiceras, & *Agoniatites.* —Smith, J. P., 1.
Agates, Monzie.—Kerr, —, 1.
——, Pentland Hills.—Strachan, J., 1.
Agnana (Calabria).—Stefano, G. de, 4.
Agnostus. — Etheridge, R., Fil., 1; Monke, H., 1; Reed, F. R. C., 5.
Agodonite.—Kœnig, G. A., 1.
Agordo (Venetia).—Keyserling, H. von, 1.
Agri R. (Basilicata).—Lorenzo, G. de, 2.
Agricultural geology.—Marr, J. E., 1.
——. *See also* Soils, &c.
Agriculture, Cheshire.—Edwards, W., 2.
Agrogeological Survey Report, Hungary, 1900.—Treitz, P., 1.
Ahr Valley (Nassau).—Hintz, E., 1.
Aich (Bohemia).—Knett, J., 1.
Ain (France).—Boistel, A., 1; Chanel, E., 1; Lamothe, R. de, 2.
Air-breathing vertebrates. — Williston, S. W., 3.
Aisne (France).—Babinet, —, 1; Briquet, A., 1 & 2; Cooreman, T., 1; Lasne, H., 1.
Aix-la-Chapelle (Rh.-Prussia).—Holzapfel, E., 1.
Akhalkalaki (Tiflis Gov.).—Mushketov, J., 1.
Ala Valley (Piedmont).—Rosati, A., 1.
Alabama (U.S.A.).—Hall, B. M., 1; Hayes, C. W., 2; Merrill, G. P., 1; Smith, E. A., 1.
Alameda Co. (Cal.). — Schaller, W. T., 1.

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* All fossil-names are those of genera which are figured, or occur in the titles of papers.

Alaska (N. Am.).—Brooks, A. H., 1–3; Collier, A. J., 1; Kirsopp, J., Jun., 1; Schrader, F. C., 1; Thomæ, W. F. A., 1.
Albania (Turkey).—Vinassa de Regny, P., 2; Gounot, A., 1.
Albert Edward Nyanza (Central Africa).—Moore, J. E. S., 1.
Alberta Terr. (Canada).—Brewer, W. M., 2; Hatcher, J. B., 1; Lakes, A., 11.
Albite.—Cayeux, L., 6; Focke, F., 1; Zambonini, F., 3.
Albite-pegmatite, Svealand.—Tenow, O., 1.
Albuquerque (New Mexico).—Reagan, A. B., 1.
Alces.—Newton, E. T., 2.
Alcida.—Regàlia, E., 1.
Aldershot (Hants).—Monckton, H. W., 3 & 5.
Alectryonia.—Dacqué, E., 1; Shattuck, G. B., 1.
Alençon (Normandy).—Bigot, A., 1 & 3.
Aleutian Is., Alaska.—Merriam, C. H., 1.
Alexandria (Egypt).—Pachundaki, D. E., 1.
Algæ, Carboniferous. — Renault, B., 3 & 4.
——, coral-reefs &.—Gardiner, J. S., 2.
——, disintegration &.—Duerden, J. E., 1; Lagerheim, G., 2.
——, Jurassic.—Kilian, W., 4.
——, Silurian.—White, D., 2; Whitfield, R. P., 4.
——, Triassic.—Benecke, E. W., 2; Fliche, P., 3.
Algeria (Africa). — Ficheur, E., 1; Flamand, G. B. M., 1; Fourtau, R., 2; Jourdy, E., 1; Meunier, S., 16; Ritter, É., 1; Savornin, J., 1; Termier, P., 4.
Algonkian. *See* Archæan.
Aliwal North (Cape Colony).—Broom, R., 2 & 3.
Allauch massif (Provence).—Frech, F., 1.
Allen Rum, Ras (Egypt).—Ball, J., 2.
Allier (France).—Raulin, V., 1.
Allochetite.—Ippen, J. A., 7.
Allophane.—Lespineux, G., 1.
Allorisma.—Beede, J. W., 1; Yakovlev, N., 4.
Allosaurus.—Clark, W. B., 1.
Alluvium, Geneva.—Œberhardt, B., 1.
——, Hanover.—Schucht, F., 1.
——, Hoigne R.—Fourmarier, P., 1.
——, Loire Valley.—Lamothe, R. de, 1.
——, Thames Valley.—Kennard, A. S., 2; Warren, S. H., 1.
Almond R. (Midlothian).—Cadell, H. M., 2..
Alnus.—Knowlton, F. H., 1; Palibin, J. von, 1.
Aloso (Ivory Coast).—Armas, M., 1.
Alost (Flanders).—Van Ertborn, O., 8.
Alpes-Maritimes (France).—Kilian, W., 6; Riaz, A. de, 1 & 2; Roccati, A., 1.
Alpine geology.—Zuercher, P., 1.
—— stream-mining.—Steinmann, G., 1.
Alps, Austrian.—Kossmat, F., 2; Reid, H. F., 1; Termier, P., 5–7; Weinschenk, E., 2.
——, Baden.—Keidel, H., 1.
——, Bergamesque.—Porro, C., 1.
——, Carnic.—Angelis d'Ossat, G. de, 5; Gortani, M., 1–3; Tommasi, A., 1.
——, Cottian (France).—Kilian, W., 6 & 7; Martin, D., 1; Termier, P., 3.
——, Dauphiné (France).—Kilian, W., 6 & 7; Lory, P., 1; Reid, H. F., 1.
——, Graian. — Bonney, T. G., 3.; Franchi, S., 1 & 2; Stella, A., 1; Zaccagna, D., 1.
——, Lepontine.—Bistram, A. von, 1 & 2.
——, Pennine.—Giménez, J. V., 1; Reid, H. F., 1; Spezia, G., 1.
——, Rhætian.—Hœk, H., 1; Salomon, W., 1.
——, Savoy.—Kilian, W., 5; Lugeon, M., 1; Sarasin, C., 1; Termier, P., 5.
——, Scandinavian.—Reid, H. F., 1; Tœrnebohm, A. E., 2.
——, Swabian.—Branco, W., 1 & 2.
——, Swiss.—Forel, F. A., 4; Lory, P., 1; Lugeon, M., 3, 4, 6; Penck, A. M., 1; Reid, H. F., 1; Weinschenk, E., 2.
——, Venetian.—Longhi, P., 1.
——, Western. *See* Graian, Savoy, &c.
Alsace-Lorraine. — Andreæ, A., 1–4; Benecke, E. W., 1–6; Bruhns, W., 1 & 2; Brunzel, K., 1; Buecking, H., 1, 2, 3: Deecke, W., 1–3; Dœderlein, L., 1 & 2; Fœrster, B., 1–7; Haug, É., 1; Herrmann, A., 1–2; Jækel, O., 1–3; Klæhn, G., 1; Linck, G., 1–3; Meyer, G., 1; Schaller, J., 1; Steuer, A., 1; Schumacher, E., 1–6; Schweitzer, J., 1; Tornquist, A., 1; Valentin, J., 1; Van Werveke, L., 1–19; Zeiller, R., 1.
Alsop-en-le-Dale (Derby). — Arnold-Bemrose, H. H., 1.
Alston Moor (Cumberland). — Nall, W., 1.
Altamira (Santander). — Cartailhac, E., 1.
Alum.—Miers, H. A., 2.
Aluminium—Struthers, J., 1.
Alunogen.—Schaller, W. T., 1.
Alvincz (Hungary).—Pálfy, M. von, 2.
Amarin Valley (Alsace).—Linck, G., 3.
Amberg (Bavaria).—Kohler, E., 1.
Amberleya.—Bistram, A. von, 1; Moore, J. E. S., 1.
America, advent of Man.—Matthew, G. F., 2; *see also* Man.
—— (Central).—Hay, Sir J. D., 1.
—— (N.).—Russell, I. C., 1; Toula, F., 3; Weeks, F. B., 1 & 2; *see also* Canada, &c.
—— (S.).—Toula, F., 3.
Ames Knob, North Haven I. (Me.).—Willis, B., 2.
Amiata, Mte. (Tuscany).—Clerici, E., 2; Lotti, B., 3; Verri, A., 4 & 6.

Ammonites, Cretaceous. — Bogoslovski, N. A., 1; Burckhardt, C., 1; Gregory, J. W., 6; Kœnen, A. von, 1; Kossmat, F., 1; Sarasin, C., 2; Solger, F., 1; Yabe, H., 1.
——, Jurassic. — Bistram, A. von, 1; Buckman, S. S., 2; Fucini, A., 1 & 2; Healy, M., 1.
——, Triassic.—Frech, F., 1.
Ammonitidæ, evolution of. — Hœrnes, R., 4.
Ammonium-chloride, action upon silicates.—Clarkes, F. W., 2.
Ammonoids, distribution from Silurian to Trias.—Smith, J. P., 1.
Amnicola.—Stearns, R. E. C., 1.
Amphibole. *See* Hornblende.
Amphibole - Hudsonite. — Weidman, S., 1.
Amphibolite, Canadian. — Harrington, B. J., 2.
——, Œtz Valley.—Hezner, L., 1.
Amphiclina & *Amphiclinodonta.*—Bittner, A., 1.
Amphicyon.—Depéret, C., 3.
Amphigraptus.—Elles, G. L., 1.
Amphiperatherium & *Amphitragulus.* —Depéret, C., 3.
Amplosipho.—Vincent, É., 1.
Ampthill Clay, boulder of, Biggleswade. —Home, H., 1.
Ampullospira.—Chartron, C., 1.
Ampyx.—Reed, F. R. C., 5.
Amrum I. (Frisian Is.).—Martin, J., 1; Petersen, J., 1.
Amusium.—Hind, W., 4.
Amygdalus.—Engelhardt, H., 1.
Anachis.—Cossmann, M., 2.
Anakie (Queensl.).—Dunstan, B., 1.
Analyses, British coal.—Anon., 18.
——, rock.—Dittrich, M., 1; Fouqué, F., 1; Gans, R., 1; Osann, A., 3.
——, sandstones.—Anon., 34.
——, soils.—Gans, R., 1; Schlœsing, T., Sen., 1; Vinassa de Regny, P., 3; *see also* Soils, &c.
——, Tasmanian ore.—Stewart, H., 1.
Anapaite.—Loczka, J., 2.
Anatase.—Baumhauer, H., 1; Pohl, O., 1; Scrivenor, J. B., 3.
Anatina.—Shattuck, G. B., 1.
Anatolia (Asia Minor).—Schaffer, F. X., 1–3.
Anchura.—Etheridge, R., Fil., 2.
Ancilla. — Cossmann, M., 2; Sokolov, N., 2.
Ancodus.—Bush, L. P., 1.
Ancylus.—Pavlov, P. S., 2.
Anderson's Inlet (Gippsland).—Kitson, A. E., 3.
Andes (S. Am.).—Becke, F., 1; Burckhardt, C., 1; White, R. B., 1 & 2,
Andesite, Abyssinia. — Raisin, C. A., 1.
——, Montenegro.—Manasse, E., 1.
——, New South Wales. — Card, G. W., 3.
——, Oregon.—Diller, J. S., 3.
Andesite, Rumania.—Butureanŭ, V. C., 1.
——, Tuscany.—Verri, A., 6.
——, Wicklow, Co.—Seymour, H. J., 2.
Andover (Mass.).—Mills, F. S., 1.
—— (Me.).—Ward, H. A., 5.
—— (New Brunswick). — Chalmers, R., 1.
Androlepis & *Androstrobus.*—Nathorst, A. G., 2.
Andromeda. — Engelhardt, H., 1; Knowlton, F. H., 1.
Ångerman R. (Norrland). — Ahlenius, K., 1.
Anglesite.—Millosevich, F., 2.
Anglia, East. *See* Suffolk, &c.
Angola (Africa).—Berg, G., 2.
Angulatus-limestone, Alsace.—Deecke, W., 2.
Anhalt (Germany).—Van't Hoff, J. H., 1–5.
Anhydrite, Simplon Tunnel.—Spezia, G., 1.
Aniene River (Rome).—Viola, C., 1.
Animikie, Minnesota.—Hall, C. W., 1.
Anjou (France).—Dollfus, G. F., 4.
Ann, Cape (Mass.).—Tarr, R. S., 1.
Annes (Savoy).—Sarasin, C., 1.
Anodonta.—Pavlov, P. S., 2.
Anomia.—Franchis, F. de, 1.
Anomocare.—Weller, S., 2.
Anorthite.—Fels, G., 1; Hulyák, V., 1.
Anse du Bugey (Ain).—Boistel, A., 1.
Antarctic.—Andersson, H. G., 3; Arçtowski, H., 1–4; Bellingshausen, F. von, 1; Prior, G. T., 4; Weller, S., 1.
Antedon.—Loriol, P. de, 2.
Antelope Hills (Kan.).—Sherwin, R. S.. 1.
Antherangiopsis.—Nathorst, A. G., 2.
Anthophyllite.—Warren, C. H., 1.
Anthracite, Pennsylvania.—Stœk, H. H., 1.
——, Virginia (W.).—Griffith, W., 1.
Anthracosiro.—Pocock, R. I., 1.
Anthropodus.—Schlosser, M., 1.
Anticlinal mountains, Washington.—Smith, G. O., 2.
Antimonite.—Hutchinson, A., 2.
Antimony, New South Wales. — Pittman, E. F., 1.
——, Piedmont.—Novarese, V., 1.
——, United States.—Struthers, J., 4.
Antimony-glance.—Mueller, E. C., 1.
Antrim, Co. (Ireland).—Andrews, M. K., 1; Cole, G. A. J., 10; Præger, R. L., 2.
Antwerp (Belgium).—Van Ertborn, O., 10.
Aosta Valley (Piedmont).—Brugnatelli, L., 2 & 3.
Apache, Fort (Ar.).—Reagan, A. B., 3.
Apatite.—Gaubert, P., 1; Osann, A., 1; Vernadski, V. S., 2.
Apatokephalus.—Reed, F. R. C., 5.
Apennines (Italy).—Alippi, T., 1; Figari, L., 1; Lorenzo, G. de, 1; Rovereto, G., 1; Segré, C., 1.

Apes, Tertiary.—Macnamara, N. C., 1.

Aphthitalite.—Van't Hoff, J. H., 3.

Apigné, Landes d' (Ille-et-Vilaine).—Kerforne, F., 3; Lebesconte, P., 1.

Aplite-vein, glacial shearing of.—Futterer, K., 1.

Aplodiadema.—Loriol, P. de, 2.

Aplosmilia.—Felix, J., 2.

Apolda (Weimar).—Compter, G., 11.

Aporrhais.—Dacqué, E., 1.

Appalachian Coalfield (U.S.A.).—White, D., 3.

—— Ranges, S. (N. Am.).—Hayes, C. W., 2.

Apricardia.—Franchis, F. de, 1.

Aptian, Texas.—Kilian, W., 3.

Apuan Alps (Tuscany).—Sacco, F., 3.

Apulia (Italy).—Franchis, F. de, 1.

Aquatic air-breathing vertebrates.—Williston, S. W., 3.

Arachnoidea, Carboniferous.—Pocock, R. I., 1.

Aragonite.—Meigen, W., 1 & 2; Melczer, G., 3; Panebianco, G., 1; Stœber, F., 1.

Aral, Sea of (Asia).—Friederichsen, M., 1; Samoïlov, J., 1.

Aralia.—Knowlton, F. H., 1.

Aranyos Group (Transylvania).—Gesell, A., 1; Pálfy, M. von, 1; Telegd, L. R. von, 1.

Arapahoe Glacier (Colo.).—Fennemann, N. M., 1.

Araucarites.—Seward, A. C., 2.

Aravis (Savoy).—Sarasin, C., 1.

Arca.—Casey, T. L., 1; Oppenheim, P., 6.

Archæan, Australia (S.).—Greenway, T. C., 1.

——, Canada —Coleman, A. P., 2; Osann, A., 1.

——, Leicestershire.—Fox-Strangways, C., 1; Watts, W. W., 1; Woodward, H. B., 6.

——, Moravia.—Kretschmer, F., 1.

——, origin of.—Callaway, C., 1.

——, United States.—Hobbs, W. H., 6; Weidman, S., 2; Willis, B., 1.

——, Victoria (Austral.).—Gregory, J. W., 3.

Archæophilus.—Ameghino, F., 4.

Archæopteris.—Nathorst, A. G., 1.

Archelon.—Wieland, G. R., 1.

ARCHIAC (D') types.—Thévenin, A., 2.

Architarbus.—Melander, A. L., 1.

Arcier (Doubs).—Van den Broeck, E., 11.

Arctic.—Andersson, G., 2; Anon., 29; Baun, A., 1; Bonney, T. G., 8; Colombia, L., 1; Kayser, E., 1; Lupša, F., 1; Schei, P., 1; Staub, M., 1; Sverdrup, O., 1; *see also* Spitsbergen, &c.

—— Canada.—Hanbury, D. T., 1.

Arctotherium.—Ameghino, F., 2.

Ardwick Series, Manchester.—Arber, E. A. N., 2.

Areuse R., Neuchâtel.—Schardt, H., 5.

Argentat (Corrèze).—Grossouvre, A. de, 5.

Argenteuil (Quebec).—Ells, R. W., 3.

Argentina (S. Am.).—Ameghino, F., 2; Bodenbender, G., 1; Brinsmade, R. B., 1; Burckhardt, C., 1; Clayton, E. G., 2; Ducloux, E. H., 1; Nordenskjœld, E., 3; Hauthal, R., 1.

Argentodomeykite.—Kœnig, G. A., 1.

Arges.—Weller, S., 2.

Argilliferous lignite, Calabria.—Stefano, G. de, 4.

Argolis (Greece).—Cayeux, L., 1.

Argon in gas from mineral-springs.—Moissan, H., 1; Moureu, C., 1.

ARGYLL, Duke of [8th]. *See Obit.*, Goodchild, J. G., 6.

Argyllshire.—Kynaston, H., 1.

Ariège (France).—Caralp, J., 1; Carez, L., 4, 5, 7; Pietté, É., 1.

Arizona (U.S.A.).—Blake, W. P., 1 & 3; Davis, W. M., 3; Dumble, E. T., 1; Palmer, C. M., 1; Reagan, A. B., 2 & 3.

Arkanite.—Van't Hoff, J. H., 3.

Arkansas (U.S.A.).—Branner, J. C., 2; Hedburg, E., 1; Taff, J. A., 1 & 2.

Arltunga (N. Terr., S. Austral.).—Brown, H. Y. L., 1 & 2.

Armentières (Nord).—Vaillant, V., 1.

Armorican.—Barrois, C., 5; Kerforne, F., 1.

Arnioceras.—Fucini, A., 1.

Arno Valley (Tuscany).—Regàlia, E., 1; Ristori, G., 1.

Arona (Piedmont).—Taramelli, T., 5.

Arosa (Grisons).—Hœk, H., 1.

Arpadites.—Airaghi, C.

Arran, I. of.—Gunn, W., 1.

Arsenic (native), Arizona.—Warren, C. H., 1.

—— (——), Montreal.—Evans, N. N., 1.

——, occurrence in mineral and sea-waters, &c.—Gautier, A.

—— ores, United States.—Struthers, J., 5.

Arsenopyrite.—Pettard, W. F.

Arsinoitherium.—Lankester, E. R., 1 & 2.

Art, prehistoric.—Harroy, E., 1.

Artesian water, America (N.).—Boultbee, J. W., 1; Kuemmel, H. B., 1; Russell, I. C., 4 & 5; Slichter, C. S., 1; *see also* Idaho, &c.

—— ——, Brussels.—Cuvelier, E., 1.

—— ——, Flanders.—Brouwer, M. de, 1; Van Ertborn, O., 8.

—— ——, Hungary.—Pethœ, J., 2.

—— ——, Japan.—Norman, F. J., 1.

—— ——, New South Wales.—Pittman, E. F., 1.

—— ——, origin of.—Pantanelli, D., 2.

Arthropoda.—Packard, A. S., 2; Woodward, H., 12.
Artinite.—Brugnatelli, L., 1–3.
Arve R. (Savoy).—Haug, É., 4.
Asaphus.—Reed, F. R. C., 5.
Asbestos.—Aguilera, J. G., 1; Brugnatelli, L., 1; Ingall, E. D., 2; Pratt, J. H., 8; Primrose, A., 1.
Ashbourne & Buxton Ry.—Arnold-Bemrose, H. H., 1.
Ashes, fall of, Lower California.—Schmidt, C., 2.
——, St. Vincent, volcanic.—Klein, C., 1.
——. *See also* Dust.
Ashworth Moor (Lancs).—Baldwin, W., 1.
Asia.—Toula, F., 3; *see also* Siberia, &c.
—— (Central).—Friederichsen, M., 2; Hedin, S., 1; Wright, G. F., 1.
—— (E.).—Richthofen, Baron F. von, 1.
Asia Minor.—Achiardi, G. d', 5; Engelhardt, H., 1; Fuchs, T., 2; Penecke, K. A., 1; Schaffer, F. K., 1–3; Simmersbach, B., 1; Toula, F., 1; Yung, —, 1.
Asphalt, Albania.—Gounot, A. H., 1.
——, Argentina.—Ducloux, E., 1.
——, Palestine.—Blanckenhorn, M., 4.
——, Sicily.—Lotz, H., 2.
——, Trinidad.—Gordon, J. W., 1.
——, United States.—Eldridge, G. H., 1; Lakes, A., 15; Struthers, J., 7.
——. *See also* Petroleum, &c.
Aspidiscus.—Kossmat, F., 1.
Aspidoceras.—Burckhardt, C., 1.
Aspidopholas.—Dollfus, G. F., 6.
Asquins (Yonne).—Couppey de la Forest, M. le, 1.
Assam (Asia).—Oldham, R. S., 1.
Asschian, Belgium.—Forir, H.
Assilina.—Prever, P., 1.
Astarte.—Bistram, A. von, 1; Dainelli, G., 3; Yakovlev, N., 4.
Asterostemma.—Scott, W. B., 1.
Asthenotoma.—Cossmann, M., 2.
Astrakanite.—Jæger, F. M., 1; *see also* Blödite.
Astraræa.—Felix, J., 4.
Astrocœnia.—Felix, J., 2; Osasco, E., 1.
Astroni crater (Campania).—Lorenzo, G. de, 6.
Ataprus.—Chartron, C., 1.
Atchinsk (Siberia).—Bordeaux, A., 1.
Athol (Mass.).—Palache, C., 1.
Atlantic Ocean.—Choffat, P., 1; Lohmann, H., 1.
Atlantis problem.—Scharff, R. F., 1.
Atlas Mts. (Algeria, &c.).—Fischer, T., 1; Ritter, É., 1.
Atlin (B. C.).—Gwillim, J. C., 1.
Atolls, Pacific.—Agassiz, A., 2.
Atracites.—Airaghi, C., 1.
Aube, R. (France).—Lemoine, P., 1.
Aubusson (Creuse).—Michel-Lévy, A., 1.
Aucella.—Etheridge, R., Fil., 2.
Augite.—Milch, L., 2; Weinschenk, E., 3; *see also* Pyroxene.
Augitic porphyry, Venetia.—Keyserling, H. von, 1.
Augustusberg (Saxony).—Zimmermann, R., 1.
Auk, Tertiary.—Lucas, F. A., 7.
Aulacothyris.—Bittner, A., 1.
Aulopsammia.—Felix, J., 2.
Ault (Somme).—Bardou, —., 1.
Aus Lake (Styria).—Hœrnes, R., 5.
Austin (Texas).—Shattuck, G. B., 1.
Australasia.—Toula, F., 3.
Australia (S.).—Brown, H. Y. L., 3 & 4; Chewings, C., 1; Coghlan, T. A., 1; Cumming, A. C., 1; Etheridge, R., Fil., 1 & 2; Greenway, T. C., 1; Howchin, W., 1.
—— (——), N. Terr.—Brown, H Y. L., 1 & 2.
—— (W.).—Coghlan, T. A., 1; King, H. S., 1; Krusch, P., 1; Maitland, A. G., 1; Spencer, L. J., 1.
Australian Continent.—Thompson, J. P., 1.
Austria.—Cole, G. A. J., 8; Geyer, G., 1; Meissner, —., 1; Mojsisovics, E. von, 1 & 3.
—— (Lower).—Abel, O., 3; Fuchs, T., 1, 5, & 6; Toula, F., 2.
Auvergne (France).—Brunhes, B., 2; Montlosier, — de, 1.
Avalanches.—Mougin, P., 1; Schardt, H., 4.
AVELINE, W. T. *See Obit.*, Anon., 2.
Aveyron (France).—Fournier, E., 1.
Avicula.—Drevermann, F., 2; Kayser, E., 1; Maurer, F., 1.
Aviculopecten.—Beede, J. W., 1; Bittner, A., 1; Drevermann, F., 2; Gortani, M., 3; Hind, W., 4; Yakovlev, N., 4.
Avoltri, Forni (Venetia).—Gortani, M., 1–3.
Axinite.—Ford, W. E., 2.
Ayrshire (Scotland).—Gunn, W., 1; Reed, F. R. C., 5; Smith, J., 1; Wright, J., 1.
Azores (Atlantic).—Choffat, P., 1; Howarth, O. A., 1.

Babingtonite.—Palache, C., 1.
Bača Valley (Tyrol).—Kossmat, F., 2.
Bachergebirge (Styria).—Medanich, G., 1.
Bács Comitat (Hungary).—Koch, A., 3.
Bactrites.—Smith, J. P., 1.
Baden (Germany).—Futterer, K., 1; Keidel, H., 1; Schalch, F., 1–3; Steinmann, G., 2.
Baëna.—Osborn, H. F., 4.
Bagnacavallo (Emilia).—Corti, B., 1.
Bagnères-de-Luchon (Haute-Garonne).—Garrigou, F., 1.

Bagnorea (Latium).—Meli, R., 1.
Bagshot Beds, Berkshire.—Blake, J. H., 1.
—— ——, Dorset.—Hudleston, W. H., 1; Woodward, H. B., 10.
—— ——, Surrey.—Coomáraswámy, A. K., 3; Monckton, H. W., 3.
Baiera.—Mœller, H., 1; Seward, A. C., 2.
Baikal, Lake (Siberia).—Bagashov, I., 1.
Bajocian Denudation, Gloucestershire.—Richardson, L., 1.
Bakerite.—Giles, W. B., 1.
Bakewellia.—Yakovlev, N., 4.
Balanophyllia.—Felix, J., 3.
Balantium.—Fuchs, T., 4.
Balbronn (Alsace-Lorraine).—Steuer, A., 1.
Balkan, Trans-, Railway.—Vinassa de Regny, P., 2.
Balkash, Lake (Russian Turkestan).—Levat, E. D., 1.
Baltic.—Geinitz, E., 2 & 3; Ussing, N. V., 1; Wiman, C., 1.
Baluchistan (India).—Holland, T. H., 3; Nœtling, F., 1.
Bamberg (Bavaria).—Barnes, J., 1.
Banaba I. (Pacific).—Reed, F. R. C., 3.
Bangalore (Mysore).—Jayaram, B., 1; Primrose, A., 1.
Baoussé-Roussé (Alpes-Maritimes).—Gaudry, A., 1.
Baptanodon.—Gilmore, C. W., 1; Knight, W. C., 3.
Baptornis.—Lucas, F. A., 8.
Baraba Steppe (Tomsk Gov.).—Tanfilïev, G. I., 1.
Barbados (W.I.).—Coppock, J. B., 1; Powell, H., 2; Spencer, J. W., 3.
Barcelona (Catalonia).—Vidal, L. M., 1.
'Barisal guns.'—Alippi, T., 1; Botti, U., 1.
Barnaul (Tomsk Gov.).—Tanfilïev, G. I., 1.
Barnea.—Dollfus, G. F., 6.
Barremian, Provence.—Pellat, E., 1.
Barroisiceras.—Shattuck, G. B., 1.
Barrule granite-quarries, I. of Man.—Elsden, J. V., 2.
Barton, Further (Gloucester).—Hooker, C. P., 1.
Bartonian, Sardinia.—Dainelli, G., 3.
Barytes.—Buecking, H., 1; Delkeskamp, R., 1; Everding, H., 1; Feurer, J., 1; Pratt, J. H., 9; Rzehak, A., 1; Strandmark, J. E., 1.
Basalt, Abyssinia.—Raisin, C. A., 1.
——, Alsace.—Buecking, H., 2; Linck, G., 1.
——, Antarctic.—Prior, G. T., 4.
——, Arctic, Canada.—Hanbury, D. T., 1.
——, Caernarvon.—Cope, T. H., 1.
——, Derbyshire.—Moore, S., 1.
——, Greece.—Hilber, V., 2.
——, Hesse.—Klemm, G., 2; Schultz, W., 1.
——, Iceland.—Pjetursson, H., 1.
Basalt, Newfoundland.—Daly, R. A., 1.
——, New South Wales.—Andrews, E. C., 2; Card, G. W., 3; Mingaye, J. C. H., 3.
——, Oregon.—Diller, J. S., 3.
——, Scania.—Kjellén, R., 3.
——, Teesdale.—I'Anson, J. C., 1.
Basel (Switzerland).—Greppin, E., 1.
Basilicata (Italy).—Lorenzo, G. de, 2 & 3.
Basilisaurus.—Lucas, F. A., 4.
Basin-Range Structure, Death Valley (Cal.).—Campbell, R., 2.
Basins, Swiss closed.—Lugeon, M., 6.
Bass Rock (Firth of Forth).—Goodchild, J. G., 1.
Basterotia.—Dollfus, G. F., 6.
Bath Furnace (Ky.).—Miller, A. M., 1; Ward, H. A., 4.
Bathurst Inlet (Arctic Canada).—Hanbury, D. T., 1.
Batrachia, Cretaceous.—Osborn, H. F., 4.
——, Tertiary.—Stefano, G. de, 1.
Batrachosuchus.—Broom, R., 3.
Baudour (Hainault).—Cornet, J., 3.
Baumhauerite.—Solly, R. H., 1 & 2.
Bauxite (Italy).—Achiardi, G. d', 2; Novarese, V., 3.
——, occurrence of.—Henatsch, W., 1.
——, United States.—Struthers, J., 1.
Bavaria (Germany).—Barnes, J., 1; Branco, W., 1 & 2; Buecking, H., 4; Duell, E., 1; Henkel, L., 3; Knebel, W. von, 1 & 2; Kohler, E., 1; Launay, L. de, 3; Pfaff, F. W., 2; Regelmann, C., 1; Reindl, J., 1; Ries, A., 1; Schmierer, T., 1; Weinschenk, E., 8.
Baveno (Piedmont).—Artini, E., 1.
Bayonne (Basses-Pyrénées).—Bertrand, L., 1.
Beaches, Yorkshire, infra-Glacial fauna in.—Lamplugh, G. W., 3; *see also* Raised Beaches, Shingle, &c.
Beaconsfield (Tasmania).—Twelvetrees, W. H., 4.
Beania.—Nathorst, A. G., 2.
Bear I. (Arctic).—Nathorst, A. G., 1.
Bear-Lodge Mt. (Wy.).—Loomis, F. B., 1.
Beaufort West (Cape Colony).—Rogers, A. W., 5.
Beaumont (Texas).—Lucas, A. F., 1; Stœk, H. H., 1.
Beauval (Aisne).—Briquet, A., 2.
Beavers, Tertiary.—Matthew, W. D., 4.
Bedfordshire.—Home, H., 1; Hopkinson, J., 1; Lamplugh, G. W., 7.
Beer Harbour (Devon).—Rowe, A. W., 2.
Beinn-Ledi Group.—Cunningham-Craig, E. H., 1.
Belbites.—Pampaloni, L., 1.
Belemnites.—Etheridge, R., Fil., 2; Lamplugh, G. W., 1; Loriol, P. de, 1; Uhlig, V., 1.

Belfast (Ireland).—Bennett, F. J., 1; Cole, G. A. J., 10; Præger, R. L., 2.
Belgian coast water-supply.—Andrimont, R. d', 1.
'Belgica,' voyage of the.—Arçtowski, H., 1 & 4; Thoulet, J., 1.
Belgium.—Claes, —, 1; Dobers, —, 1; Forir, H., 1; Harzé, É., 1 & 2; Lambert, J., 3; Leriche, M., 3; Malaise, C., 1 & 2; Moulan, T. C., 2; Mourlon, M., 1; Rutot, A., 1, 2, 4, 5; Seward, A. C., 5; Walkhoff, O., 1; *see also* Antwerp, Campine, Coalfields, &c.
Belledonne massif (Dauphiné).—Termier, P., 3.
Bellerophon.—Walther, K., 1.
Bellevue (Idaho).—Lakes, A., 2.
Bellinurus.—Baldwin, W., 2.
Bellongue (Ariège).—Caralp, J., 1.
Belly River (Canada).—Hatcher, J. B., 1.
—— —— Beds.—Hatcher, J. B., 4; Osborn, H. F., 4.
Belonostomus.—Leriche, M., 1.
Ben Cruachan (Argyll).—Kynaston, H., 1.
Bena-(de)-Padru mines (Sardinia).—Lovisato, D., 2.
Bendigo (Victoria).—Cundy, W. H., 1.
Bengal (India).—Adamson, T., 1; Grover, F., 1.
Beni-Toufout massif (Algeria).—Termier, P., 4.
BENNIE, J. *See Obit.*, Horne, J., 2.
Benovac (Dalmatia).—Schubert, R. J., 2.
Benton Shales, Kansas.—Lindgren, W., 2.
Berberis.—Knowlton, F. H., 1.
Berea Grit Oil-Sand, Ohio.—Griswold, W. T., 1.
Beresovka R. (Yakutsk).—Tolmashev, I. P., 1.
Bergamo (Lombardy).—Porro, C., 1; Tacconi, E., 2.
Bergen (Norway).—Monckton, H. W., 2.
Bergholt. *See* East Bergholt.
Berkshire.—Blake, J. H., 1.
Berkshire Co. (Mass.).—Taylor, F. B., 1.
Bermondsey (London).—Kennard, A. S., 2; Warren, S. H., 1.
Bermuda Is. (Atlantic).—Verrill, A. E., 1 & 2.
Berne (Switzerland).—Gerber, E., 1.
Bernissart (Hainault).—Bertrand, C. E., 1; Pauw, L. F. de, 1 & 2.
Beroun (Bohemia).—Slavik, F., 1.
Berry (France).—Péron, A., 1.
Berthierite.—Loczka, J., 1.
Berwickshire (Scotland).—Goodchild, J. G., 2.
Beryl.—Bertolio, S., 1; Pettard, W. F., 1.
Bessarabia (Russia).—Michalski, A., 1.
Betchat (Ariège).—Carez, L., 4.
Bethanga (Victoria).—Jenkins, H. C., 1.
Betula.—Engelhardt, H., 1; Knowlton, F. H., 1.
Beyrichia.—Weller, S., 2.
Biarritz (Basses-Pyrénées).—Bertrand, L., 1; Carez, L., 6; Douvillé, H., 9; Meyer-Eymar, C., 1; Seunes, J., 1; Stuart-Menteath, P. W., 1.
'Bibliographia geologica.'—Mourlon, M., 3; Van den Broeck, E., 14.
Bicia.—Walcott, C. D., 3.
Bidart (Basses-Pyrénées).—Bertrand, L., 1; Carez, L., 3.
Bielaya R. & Bieloretsk (Ufa Gov.).—Kovalev, P., 1.
Bifarina.—Liebus, A., 2.
Bigenerina.—Gortani, M., 3.
Biggenden, Mt. (Queensl.).—Ball, L. C., 2.
Biggleswade (Beds).—Home, H., 1.
Bighorn Mts. (Wy.).—Salisbury, R. D., 1.
Bilbao (Vizcaya).—Adams, F. D., 1.
Binn Valley (Valais).—Baumhauer, H., 2 & 4; Lewis, W. J., 1.; Solly, R. H., 1 & 2.
Biotite-diabase, Saxony.—Beck, R., 1.
Biradiolites.—Franchis, F. de, 1.
Birds, Cretaceous.—Lucas, F. A., 8.
——, evolution of.—Lydekker, R., 2.
——, Quaternary.—Grandidier, G., 2.
——, Tertiary.—Ihering, H. von, 1.; Lucas, F. A., 7; Regàlia, E., 1.
Birefringence, mineral.—Miers, H. A., 2.
Bislich (Rh.-Prussia).—Mueller, G., 1.
Bismuth.—Ball, L. C., 2; Rimatori, C., 1; Struthers, J., 6.
Bitter Lakes (Yenisei Gov.).—Ludwig, F., 1; Tolmashev, I. P., 1.
Bitterfeld (Saxony).—Riedel, O., 1.
Bitumen, United States.—Eldridge, G. H., 1; *see also* Asphalt, &c.
Black Hills (S. Dakota).—Irving, J. D., 1.
——, West side (Wy.).—Loomis, F. B., 1.
Black-Reef Series, Orange-River Colony.—Hatch, F. H., 3.
Black-Sea Gov. (Russia).—Nikitin, S., 1.
Blanc, Mont (Savoy).—Forel, F. A., 1.
Blansko (Moravia).—Bock, H., 1.
Blanzy (Saône-et-Loire).—Delafond, F., 1.
Blastoidea, Devonian.—Hambach, G., 1.
Bleiberg (Carinthia).—Hœfer, H., 2.
BLEICHER, G. *See Obit.*, Fliche, P., 2.
Block Mts. (N. Mex.).—Johnson, D. W., 1.
Blocks, exotic, Hundés.—Krafft, A. von, 1.
Blödite.—Jæger, F. M., 1; Van't Hoff, J. H., 3 & 5.
Bloomsbury (London).—Bennett, F. J., 1.
Blue-Black Slates, Cornwall.—Parkinson, J., 1.
Blue Mts. (Oregon).—Lindgren, W., 1.
Bochianites.—Sarasin, C., 2.
Bodaibo R. (Siberia).—Obrutchev, V., 1.
Bodenmais (Bavaria).—Weinschenk, E., 8.

Bogoslov volcanoes, Aleutian Is.—Merriam, C. H., 1.
Bogs, Sweden.—Sjœgren, H., 1; *see also* Peat, &c.
Bohemia.—Anon., 19; Bauer, F., 1; Becke, F., 1; Dathe, E., 1; Graber, H. V., 1; Hanamann, J., 1; Hinterlechner, K., 1 & 2; Jahn, J. J., 1; Liebus, A., 1; Meissner, —., 1; Mojsisovics, E. von, 3; Pelikan, A., 1; Petrascheck, W., 1; Počta, P., 1; Slavik, F., 1; Tietze, E., 1; Weithofer, K. A., 1; Želízko, J. V., 1.
Bois-Bernard (Pas-de-Calais).—Barrois, C., 1.
Bolderian, Belgium.—Forir, H., 1.
Bole.—Surgunov, N., 1.
Boletia.—Loriol, P. de., 2.
'Bolitho' medal.—Foster, C. Le N., 4.
Bolivia (S. Am.).—Evans, J. W., 1–3; Nordenskjœld, E., 1–3.
Bologna (Emilia).—Flores, E., 2.
'Bolson' Plains (N. Mex.).—Keyes, C. R., 4.
Bombicci, L. *See Obit.*, Neviani, A., 1.
Bone-bed, Concud.—Woodward, A. S., 4.
——-earth, Yverdon.—Stehlin, H. G., 2.
'Boniti,' *see* 'Barisal Guns,' 'Mistpoeffers,' &c.
Bonn (Rh.-Prussia).—Walkhoff, O., 1.
Bonneville (Savoy).—Girardin, P., 1.
Boom (Antwerp).—Delheid, E., 1.
Boothite.—Schaller, W. T., 1.
Borax, California, &c.—Campbell, M. R., 1 & 2; Maguire, —., 1; Struthers, J., 12.
Bordeu spring (Haute-Garonne).—Moissan, H., 1.
Boring-mollusca, Ayrshire Hills.—Smith, J., 1.
Borings, Alsace-Lorraine.—Andreæ, A., 4.
——, Australia (W.).—Maitland, A. G., 2.
——, Belgium.—Brouwer, M. de, 1; Fourmarier, P., 2; Lapparent, A. de, 5; Lohest, M., 1; Stainier, X., 1; Van Ertborn, O., 3 & 8.
——, Durham & Northumberland.—Lebour, G. A., 1.
——, Germany.—Mueller, G., 1; Ochsenius, C., 1.
——, Japan.—Norman, F. J., 1.
——, Lancashire.—Dickson, J., 2.
——, Lincolnshire.—Preston, H., 1.
——, Northants.—Thompson, B., 1.
——, Nova Scotia.—Gilpin, E., Jun., 1 & 2; Weatherbe, D'A., 1.
——, Pas-de-Calais.—Léon, —., 1.
——, Russia.—Sinzov, I., 1.
——, Suffolk.—Whitaker, W., 1.
——, United States.—Boultbee, J. W., 1; Russell, I. C., 4.
——, Yorkshire.—Simpson, W., 1.
——. *See also* Artesian, &c.
Borkholm (I. of Gotland).—Wiman, C., 1.
Bormio (Lombardy).—Hammar, W., 1.
Borneo (E. I.).—Fliegel, G., 1; Molengraaff, G. A. F., 1; Newton, R. B., 1; Truscott, S. J., 1.
Bornholm (Baltic).—Mœller, H., 1.
Bornite.—Harrington, B. J., 3.
Borrowdale (Cumberland).—Walker, E. E., 1.
Boryslav (Galicia).—Galloway, W., 1.
Bos.—Hepburn, D., 1; Rutot, A., 5; Sheppard, T., 3.
Boscampo (Tyrol).—Ippen, J. A., 5.
Boskovitz (Moravia).—Bock, H., 1.
Bosnia.—Bittner, A., 1.
Bosquet (Algeria).—Ficheur, E., 1.
Botesberg (Hungary).—Zimányi, K., 1.
Bothriodon.—Rush, L. P., 1.
Bothrodendron.—Nathorst, A. G., 1 Seward, A. C., 2.
Botryogen.—Eakle, A. S., 1.
Bottendorf (Hesse).—Wuest, E., 2.
Bottino (Tuscany).—Achiardi, G. d', 4.
Botzen (Tyrol).—Wolff, F. von, 1.
Boulder-Clay, Ayrshire.—Wright, J., 1.
——, marine fauna of Irish, &c.—Wright, J., 1–3.
——, Iceland.—Pjetursson, H., 1.
——, Norfolk.—Elsden, J. V., 5.
——, Triassic, Nova Scotia.—Haycock, E., 1.
Boulders, Hull, striated.—Sheppard, T., 2.
——, Permo-Carboniferous, Victoria (Austral.).—Thiele, E. O., 1.
——, Sylt drift.—Martin, J., 1; Petersen, J., 1.
——, Tennessee erratic.—McCallie, S. W.; 1.
——. *See also* Glacial deposits, Erratic, &c.
Boulge (Suffolk).—Whitaker, W., 1.
Boulonnais (France).—Barrois, C., 3; Rigaux, E., 1; Zeiller, R., 3; *see also* Calais, Pas-de-, &c.
Bourges (Cher).—Péron, A., 1.
Bournonite.—Lovisato, D., 1; Pettard, W. F., 1.
Boussens (Haute-Garonne).—Carez, L., 4.
Bowen district (Queensl.).—Cameron, W. E., 2.
Brabant.—Elsden, J. V., 4; Lorié, J., 1; Van Ertborn, O., 1; Simoëns, G., 5.
Bracciano (Romagna).—Verri, A., 5.
Brachauchenius.—Williston, S. W., 4.
Brachiopoda, Cambrian.—Matthew, G. F., 1; Walcott, C. D., 3 & 4; Weller, S., 2.
——, Carboniferous.—Beede, J. W., 2; Nœtling, F., 2; Parkinson, H., 1; Tchernyshev, T., 1.
——, Cretaceous.—Antula, J., 1; Etheridge, R., Fil., 2; Kossmat, F., 1; Lamplugh, G. W., 7.
——, Devonian.—Drevermann, F., 2; Lotz, H., 1; Œhlert, D. P., 1; Walther, K., 1; Weller, S., 1.
——, Ordovician.—Nickles, J. M., 1.
——, recent and fossil.—Schuchert, C., 1.

Brachiopoda, Silurian.—Chapman, F., 1; Cumings, E. R., 1; Weller, S., 2.
——, Tertiary.—Gortani, M., 3.
——, Triassic.—Bittner, A., 1.; Frech, F., 1.
Brachiosaurus.—Biggs, E. S., 1.
Brachymetopus. — Drevermann, F., 2; Reed, F. R. C., 2.
Brachyodus.—Depéret, C., 3.
Brachyphyllia.—Felix, J., 2.
Brachyphyllum.—Mœller, H., 1.
Bray Hd. (Co. Dublin).—Lamplugh, G. W., 6.
Brazeau Glacier, Canad. Rocky Mts.—Coleman, A. P., 3.
Brazil (S. Am.).—Angelis d'Ossat, G. de, 2; Branner, J. C., 1; Hussak, E., 2; Scott, H. K., 1; Verrill, A. E., 1; Woodward, A. S., 7.
Breccias, Bolivia.—Evans, J. W., 3.
——, St. Helen's I.—Nolan, A. W., 1.
——, volcanic.—Branco, W., 1 & 2.
Bredon Hill (Worcester).—Buckman, S. S., 1; Hull, E., 1.
Breislakite.—Weinschenk, E., 5.
Bresse (Ain).—Lamothe, R. de, 2.
Brest (Britanny).—Barrois, C., 2 & 6.
Brettenham Park (Suffolk).—Whitaker, W., 1.
Breusch R. (Alsace-Lorraine).—Benecke, E. W., 4; Jækel, O., 1.
Briançonnais (France). — Kilian, W., 6 & 7; Termier, P., 3.
Bridlington Quay (Yorks).—Lamplugh, G. W., 3.
Bright (S. Austral.).—Brown, H. Y. L., 3.
Brisbane R. (Queensl.).—Jackson, C. F. V., 1.
Brissopsis.—Gauthier, V., 1.
Bristol.—Morgan, C. L., 1; Short, A. R., 1.
Britanny (France).—Barrois, C., 2, 5 & 6; Bézier, T., 1; Bigot, A., 2 & 4; Kerforne, F., 1–5; Lebesconte, P., 1; Lechartier, G., 1; Montessus de Ballore, F. de, 1.
British Association, Southport.—Monckton, H. W., 2; Seward, A. C., 3; Watts, W. W., 2.
British Columbia (Canada).—Daly, R. A., 3; Gwillim, J. C., 1; Johnson, P., 1; Prior, E. G., 1 & 2.
British E. Africa.—Walker, E. E., 2.
British geology.—Small, E. W., 1.
British Guiana.—Hargreaves, T. S., 1; Harrison, J. B., 1 & 2.
British Museum (Natural History).—Prior, G. T., 3.
Broca R. (Rumania).—Cadere, D., 1.
Brockrams, Eden Valley.—Kendall, P. F., 1.
Bröggeria.—Walcott, C. D., 4.
Bröggerite.—Barker, G. F., 1.
Broken Hill (N.S.W.).—Beaumont, E. K., 1; Warren, J., 1.
Brooksella.—Kinkelin, F., 3.
Brookville (Queensl.).—Cameron, W. E., 3.
Brouzet (Gard).—Pellat, E., 1.
BROWN, J. A. *See Obit.*, Anon., 3; Woodward, B. B., 1.
Brown coal, Bohemia.—Anon., 19.
—— ——, Victoria (Austral.).—Kitson, A. E., 1.
Bruguieria.—Prever, P., 1.
Brunite.—Schalch, F., 1.
Brünn (Moravia).—Bock, H., 1.
Brusau (Moravia).—Tietze, E., 1.
Brushite.—Schulten, A. de, 1.
Brunstatt (Alsace-Lorraine).—Fœrster, B., 3.
Brunswick (Germany). — Wollemann, A., 2.
Brussels (Belgium).—Cuvelier, E., 1; Leriche, M., 2; Putzeys, E., 1; Rutot, A., 2.
Brüx (Bohemia).—Anon., 19.
Bryozoa, Carboniferous.—Barnes, J., 2.
——, Cretaceous.—Canu, F., 2.
——, Devonian.—Weller, S., 2.
——, Silurian.—Chapman, F., 1; Weller, S., 2.
——, Tertiary.—Canu, F., 1; Maplestone, C. M., 1.
Buchiola.—Walther, K., 1.
Buckinghamshire.—Howe, J. A., 1.
Buco del Piombo, Como (Lombardy).—Flores, E., 1.
Buda Limestone, Texas.—Shattuck, G. B., 1.
Budakesz.—Tuzson, J., 1.
Budapest (Hungary).—Schafarzik, F., 4; Treitz, P., 2.
Budleigh Salterton (Devon).—Bonney, T. G., 7; Hunt, A. R., 5; Shrubsole, O. A., 1.
Budmania.—Andrussov, N., 1; Gorjanovič-Kramberger, K., 2.
Budua (Dalmatia).—Tietze, E., 4.
Buenos Aires (Argentina).—Ameghino, F., 2.
Building-stones, Canada.—Ingall, E. D., 2.
——, exhibition of.—Elsden, J. V., 6 & 7.
——, Irish.—Anon., 38; Cole, G. A. J., 1; Elsden, J. V., 7.
——, United States.—Barbour, E. H., 1; Coons, A. T., 1; Shedd, S., 1.
——, weathering in London.—Anon., 33.
Bukhara (Turkestan).—Levat, E. D., 1 & 2.
Bukharest (Rumania).—Uroshev, S., 1.
Bukowina (Galicia).—Volz, W., 1.
Bulawayo (Rhodesia).—Mennell, F. P., 1; Molyneux, A. J. C., 1.
Bulimorpha & *Bumastus*.—Weller, S., 2.
Bunœlurus.—Matthew, W. D., 2.
Bungay (Suffolk).—Whitaker, W., 1.
Bunzlau (Silesia).—Guerich, G., 1.
Burgundy (France). — Babinet, —, 1; Delafond, F., 1.
Burma.—Holland, T. H., 3.
Burnett R. (Queensl.).—Jackson, C. F. V., 1.
Burrows, Rocky Mt. quartzite with.—Bonney, T. G., 2 & 6.
Bute (Scotland).—Gunn, W., 1.
Buthotrephis.—White, D., 2.
Buxton (Derby).—Dawkins, W. B., 1.

Buxton & Ashbourne Ry.—Arnold-Bemrose, H. H., 1.
Bythocypris.—Weller, S., 2.

Cadiz (Ohio).—Griswold, W. T., 1.
Caermarthenshire.—Strahan, A., 3.
Caernarvonshire.—Cope, T. H., 1; Fearnsides, W. G., 1; Jehu, T. J., 1.
Calabria (Italy).—Lojacono, M., 1; Stefano, G. de, 4.
Calais, Pas-de- (France).—Barrois, C., 1; Desailly, —, 1; Deville, Ste.-Cl., 1; Févre, —, 1; Gosselet, J., 5; Léon, —, 1; *see also* Boulonnais, &c.
Calamine.—Samoïlov, J., 2.
Calamopitys.—Scott, D. H., 1.
Calaverite.—Fedorov, E. von, 5; Smith, G. F. H., 3.
Calcanthite.—Schaller, W. T., 1.
Calcareous concretions, Creechbarrow.—Hudleston, W. H., 1.
—— nodules, Tasmania.—Hogg, E. G., 1.
—— pan, Arizona.—Blake, W. P., 1.
—— sandstone, Bamberg.—Barnes, J., 1.
Calceola.—Benecke, E. W., 4.
Calcite.—Bowman, A. L., 2; Delkeskamp, R., 1; Gœssl, J., 1; Goldschmidt, V., 3; Hulyák, V., 1; Meigen, W., 1 & 2; Panebianco, G., 1; Rinne, F., 2; Tschermak, G., 1.
Calcrete, use of term.—Bonney, T. G., 5.
Calcretes, Gulf of Manaar.—Lomas, J., 3 & 6.
'Caliche.'—Blake, W. P., 1.
California (U.S.A.).—Campbell, M. R., 1 & 2; Diller, J. S., 1 & 2; Eldridge, G. H., 1; Hershey, O. H., 1–5; Lakes, A., 10, 12, 13; Lawson, A. C., 1 & 2; Lucas, F. A., 7; Maguire, —, 1; Manson, M., 2; Merriam, J. C., 1; Pratt, J. H., 1; Schaller, W. T., 1; Sinclair, W. J., 1; Smith, G. O., 1; Turner, H. W., 1; Yunge, G., 1.
Calimani massif (Rumania).—Butureanŭ, V. C., 1.
Callipteridium.—Seward, A. C., 2.
Calloneghe (Venetia).—Longhi, P., 1.
Callopora.—Weller, S., 2.
Callovian, Isère.—Kilian, W., 2.
Calvados (Normandy).—Bigot, A., 5.
Cam R. (Cambridge).—Clayton, E. G., 1.
Camarella.—Weller, S., 2.
Camarocrinus.—Schuchert, C., 5.
Camarophoria.—Tchernyshev, T., 1.
Cambewarra Mt. (N.S.W.).—Card, G. W., 3.
Camborne (Cornwall).—Hill, J. B., 1.
Cambrai (Nord).—Dollé, L., 1.
Cambrian, Bohemia.—Hinterlechner, K., 1.
——, Caernarvon.—Fearnsides, W. G., 1.
——, Canada.—Matthew, G. F., 1.
——, China.—Monke, H., 1.
——, Gotland.—Wiman, C., 2; Winkler, C., 1.
——, Nova Scotia.—Ami, H. M., 4; Poole, H. S., 2.
Cambrian, Saxony.—Dalmer, K., 2.
——, United States.—Dale, T. N., 1; Weller, S., 2.
Cambridgeshire.—Clayton, E. G., 1; Reed, F. R. C., 4.
Camelus.—Stromer, E. von, 5.
Camerino (Marches, Italy).—Mariani, M., 1.
Cameroons (Africa).—Macco, A., 1; Oppenheim, P., 1.
Camiers (Pas-de-Calais).—Gosselet, J., 5.
Campagna Romana (Italy).—Angelis d'Ossat, G. de, 6; Fantappié, L., 1; Sabatini, V., 2.
Campania (Italy).—Anon., 25; Flores, E., 2; Guenther, R. T., 1; Lorenzo, G. de, 1 & 3–6; Parona, C. F., 1; Sabatini, V., 1.
Campanile.—Cossmann, M., 1.
Campeloma.—Stanton, T. W., 2.
Campine (Belgium).—Fourmarier, P., 2; Harzé, E., 1 & 2; Kersten, J., 2; Lapparent, A. de, 4 & 5; Lejeune de Schiervel, C., 1; Lohest, M., 1; Simoëns, G., 4–8; Stainier, X., 2 & 3; Van Ertborn, O., 3 & 8.
Campodus.—Eastman, C. R., 1.
Camptonite, Rumania.—Cadere, D., 1.
——, Tyrol.—Ippen, J. A., 1.
Canada.—Ami, H. M., 1–5 & 8; Bell, R., 1; Coleman, A. P., 2; Dawson, G. M., 1; Harrington, B. J., 2; Hoffmann, G. C., 2; Ingall, E. D., 2; Jones, T. R., 1; Mabery, C. F., 1; Matthew, G. F., 1; Osann, A., 1; Penhallow, D. P., 1 & 2; Pratt, J. H., 6; Struthers, J., 13; Wilson, A. W. G., 1.
—— (Arctic).—Hanbury, D. T., 1.
—— (N.W. Terr.).—Bell, J. M., 1; Lakes, A., 11; Miers, H. A., 4; Osborn, H. F., 4.
——. *See also* Alberta, &c.
Canada-balsam in thin rock-sections.—Benedicks, C., 1.
Canadian Grand Trunk Pacific Ry.—Ami, H. M., 8.
—— Pacific Ry., landslips.—Brewer, W. M., 2; Lakes, A., 11.
—— Rocky Mts.—Bonney, T. G., 2, 6, 11; Collie, J. N., 1; Coleman, A. P., 3.
Canal No. III., Budapest.—Schafarzik, F., 4.
Canary Is.—Tacquin, A., 1.
Canidæ, Tertiary.—Matthew, W. D., 3; Wortman, J. L., 1.
Canis.—Ameghino, F., 2.
Cañon, Colorado Grand.—Davis, W. M., 1.
Canonbie (Dumfries).—Kidston, R., 2.
Cantioscyllium.—Leriche, M., 1.
Canty Bay (Haddington).—Goodchild, J. G., 1.
Cape Colony (S. Africa).—Anon., 36; Corstorphine, G. S., 1; Mennell, F. P., 2; Rogers, A. W., 1–6; Sawyer, A. R., 2; Schwarz, E. H. L., 1 & 2; Sutton, J. R., 1.
Cape Town (Cape Colony).—Anon., 36.

Cape York Peninsula (Queensl.).—Jackson, C. F. V., 3.
Cappuccini (Tuscany).—Zambonini, F., 4.
Capreolus.—Venukov, P. I., 1.
Capri, I. of (Italy).—Bellini, R., 1.
Carabodites.—Pampaloni, L., 1.
Carabus.—Lapouge, G. de, 1.
Caracoles (Chili).—Labastie, F., 1.
Caranx.—Gorjanović-Kramberger, K., 1.
Carbonaceous bed, Arona porphyry.—Taramelli, T., 5.
Carbonates, mineral. — Meigen, W., 1 & 2.
Carboniferous, Alabama.—Smith, E. A., 1.
——, Alsace.—Tornquist, A., 1.
——, Argentina.—Clayton, E. G., 2.
——, Belgium.—Delépine, G., 2; Destinez, P., 1; Stainier, X., 4; *see also* Campine, &c.
——, Borneo.—Fliegel, G., 1.
——, Boulonnais. — Barrois, C., 3; Deville, Ste.-Cl., 1.
——, Brazil.—Angelis d'Ossat, G. de, 2.
——, Burgundy.—Delafond, F., 1.
——, China.—Schellwien, E., 1.
——, concretions.—Lomas, J., 5.
—— contact with Liévin Silurian.—Desailly, —, 1.
——, Cornwall & Devon.—Ussher, W. A. E., 1.
——, Derbyshire.—Stobbs, J. T., 2.
——, Durham, &c.—Clough, C. T., 1.
——, Edinburgh.—Goodchild, J. G., 10.
——, Indiana.—Ashley G. H., 1 & 2; Hopkins, T. C., 1; Newsom, J. F., 2.
——, Iowa.—Udden, J. A., 2.
——, Ireland.—Cole, G. A. J., 1.
——, Kansas.—Beede, J. W., 1.
——, Maryland.—Clark, W. B., 1 & 2.
——, Nebraska.—Barbour, E. H., 1.
——, Nova Scotia.—Ami, H. M., 2.
——, Ohio.—Prosser, C. S., 2.
——, Oregon.—Washburne, C., 1.
——, Pennsylvania.—Adams, T. K., 1.
——, Rhenish Prussia. — Drevermann, F., 2; Holzapfel, E., 1.
——, Russia. — Tchernyshev, T., 1; Yakovlev, N., 4.
——, salt-water in Belgian. — Cornet, J., 1; Gevers-Orban, E., 1.
——, Sardinia.—Tornquist, A., 4.
——, Silesia (U.).—Michael, R., 1.
——, Staffordshire.—Hind, W., 6 & 7; Turner, E. P., 1.
——, temperature of the period.—Hoffmann J. F., 2.
——, Virginia (W.). — Campbell, M. R., 2; White, I. C., 1.
——, Yorkshire.—Dakyns, J. R., 1; Hind, W., 5; Wellburn, E. D., 1; *see also* Durham.
—— zones.—Arber, E. A. N., 5.
——. *See also* Culm, &c.
Carboniferous Limestone, Belgium. — Destinez, P., 1; Moulan, T. C., 2; Kersten, J 2.
Carboniferous Limestone, Bristol.—Morgan, C. L., 1.
—— ——, Derbyshire. — Arnold-Bemrose, H. H., 1.
—— ——, Durham, &c.—Clough, C. T., 1.
—— ——, France.—Delépine, G., 2.
—— ——, Lancashire.—Hind, W., 1.
Carborundum, crystallography of. — Negri, G. B., 1.
Carcharias.—Eastman, C. R., 2.
Carcharodon.—Eastman, C. R., 2; Koch, A., 4.
Cardiff (Glam.).—Strahan, A., 2.
Cardioceras.—Loriol, P. de, 1.
Cardiodon.—Bush, L. P., 1.
Cardiola.—Walther, K., 1.
Cardita.—Casey, T. L., 1.
Cardite.—Meunier, S., 2.
Cardium.—Bistram, A. von, 1; Dainelli, G., 3; Etheridge, R., Fil., 2; Franchis, F. de, 1; Shattuck, G. B., 1.
—— *pseudo-edule*-beds, Samara Gov.—Neustruev, S., 1.
Carical (India). *See* Karikal.
Carinthia (Austria).—Baumgærtel, B., 1; Hœfer, H., 2.
Carleton Co. (Ontario).—Ells, R. W., 3.
Carlsbad (Bohemia).—Prinz, W., 3.
Carlton Hill (Ayr).—Smith, J., 1.
Carnot (Algeria).—Ficheur, E., 1.
Carolina, N. (U.S.A.).—Watson, T. L., 1; Woodward, J. B., 1.
Carpathian Mts. (Hungary).—Beck, H., 1; Liebus, A., 2; Lugeon, M., 2; Martonne, E. de, 1; Schafarzik, F., 1 & 2; Sevastos, R., 2; Simionescŭ, J. T., 1; Uhlig, V., 2, 3, & 4; Vetters, H., 1; Zuber, R., 1.
Carpentaria, Gulf of (Queensland). — Jackson, C. F. V., 3.
Carrara (Tuscany). — Clerici, E., 1; Elsden, J. V., 9.
Carydium.—Maurer, F., 1.
Casas Grandes (Mex.).—Tassin, W., 1.
Casentino (Tuscany).—Lotti, B., 2.
Caseville (Basses-Pyrénées).—Carez, L., 3.
Caspian Sea.—Ochsenius, C., 5.
Cassel (Hesse). — Beyschlag, F., 1; Denckmann, A., 2; Hornstein, F., 1; Stille, H., 4; Walther, K., 1.
Cassis.—Cossmann, M., 2.
Cassiterite.—Seymour, H. J., 3.
Castanea.—Engelhardt, H., 1.
Castleton (Derby).—Stobbs, J. T., 2.
Castoridæ, Quaternary.—Bosco, C., 1.
Catalogue of Scientific Literature. — Morley, H. F., 1–4.
Catalonia (Spain). — Vidal, L. M., 1; Zeiller, R., 2.
Caterpillars, fossil.—Trotter, A., 1.
Caturus.—Sauvage, H. E., 2.
Caucasus.— Andersson, F., 1; Dervis, V., 1; Lœwinson-Lessing, F., 1; Michalovski, G. P., 1; Nikitin, S., 1; Reid, H. F., 1; Yermolov, A., 1.
Caupolican (Bolivia).—Evans, J. W., 1 & 2.
'Causses,' France.—Martel, E. A., 6.

Caverns & caves, artificial production of.—Meunier, S., 15.
——, Aveyron.—Fournier, E., 1.
——, Cyprus.—Woodward, H., 6.
——, Derbyshire.—Dawkins, W. B., 1.
——, Devon.—Ussher, R. J., 1.
——, Dordogne.—Martel, E. A., 4; Moissan, H., 2; Rivière, E., 1.
——, Gibraltar.—Acland, H. D., 1.
——, Haute-Garonne.—Boule, M., 1.
——, Ireland.—Præger, R. L., 1; Ussher, R. J., 1.
——, Lebanon.—Nehring, A., 1.
——, Lombardy.—Flores, E., 1.
——, Lot.—Viré, A., 1.
——, Mentone.—Gaudry, A., 1.
——, Missouri.—Gould, C. N., 1.
——, Muotta Valley.—Otter, J., 1.
——, New South Wales.—Pittman, E. F., 1.
——, San Diego (Cal.).—Lakes, A., 10.
——, Santander.—Cartailhac, E., 1.
——, Seine-Inférieure.—Fortin, R., 1.
——, Swiss Jura.—Forel, F. A., 2.
Caythorpe (Lincoln).—Preston, H., 1.
Cayuga, Lake (N.Y.).—Cleland, H. F., 1.
Cecil Co. (Md.).—Bascom, F., 1.
Celastrus.—Knowlton, F. H., 1.
Celebes I. (D.E.I.).—Koperberg, M., 1; Truscott, W. F. A., 1.
Celestine.—Samoïlov, J., 1.
Celestite.—Millosevich, F., 1; Pratt, J. H., 12; Termier, P., 2.
Celle (Hanover).—Ochsenius, C., 1.
Cellepora.—Maplestone, C. M., 1.
Cellular Magnesian Limestone, Durham.—Abbott, G., 1.
Celsian.—Strandmark, J. E., 1.
Cement-marls, Cambridgeshire.—Clayton, E. G., 1.
——, Hungary.—Koch, A., 2.
Cements, Portland.—Kimball, L. L., 6; Russell, I. C., 2; Taff, J. A., 2.
Cemetery sites, geology &.—Couppey de la Forest, M. le, 1.
Cenomanian, Devon, &c.—Jukes-Browne, A. J., 4.
——, Provence.—Jacob, C., 1; Repelin, J., 1.
——. *See also* Cretaceous.
Centronella.—Maurer, F., 1; Weller, S., 2.
Cephalomys.—Ameghino, F., 4.
Cephalopoda, Carboniferous.—Crick, G. C., 2; Foord, A. H., 1; Smith, J. P., 1.
——, Cretaceous.—Bogoslovski, N. A., 1; Burckhardt, C., 1; Etheridge, R., Fil., 2; Kossmat, F., 1; Sarasin, C., 2; Shattuck, G. B., 1; Solger, F., 1; Weller, S., 1; Whitfield, R. P., 2; Wollemann, A., 1; Uhlig, V., 1; Yabe, H., 1.
——, Devonian.—Drevermann, F., 3; Haug, E., 3.
——, evolution of.—Hœrnes, R., 4.
Cephalopoda, Jurassic.—Buckman, S. S., 2; Burckhardt, C., 1; Fucini, A., 1 & 2; Loriol, P. de, 1.
——, mode of existence.—Ruedemann, R., 2.
——, Ordovician.—Crick, G. C., 1.
——, Silurian.—Weller, S., 2.
——, Triassic.—Airaghi, C., 1; Franz, V., 1; Frech, F., 1; Hœrnes, R., 5; Kittl, E., 1; Schellwien, E., 1; Tommasi, A., 1.
——. *See also* Ammonites, &c.
Cephalotheca.—Nathorst, A. G., 1.
Ceram (D.E.I.).—Rudolph, E., 3.
Ceraterpeton.—Jækel, O., 2.
Ceratites.—Airaghi, C., 1.
Ceratotheca.—Drevermann, F., 2.
Ceratotrochus.—Dennant, J., 1; Felix, J., 2.
Ceriocrinus.—Beede, J. W., 1.
Ceriopora.—Dacqué, E., 1.
Cerithiella.—Chartron, C., 1.
Cerithium.—Cossmann, M., 1; Franchis, F. de, 1; Hœrnes, R., 1; Longhi, P., 1; Shattuck, G. B., 1.
—— *Diaboli*-beds.—Haug, E., 2.
—— limestone, Hesse.—Steuer, A., 2.
Cerussite.—Pettard, W. F., 1; Warren, C. H., 1.
Cervus.—Alessandri, G. de, 1; Ameghino, F., 2; Hepburn, D., 1; Sernander, R., 1; Smallwood, W. M., 1; Venukov, P. I., 1.
Cestracion.—Eastman, C. R., 1; Leriche, M., 1.
Cetacea, Tertiary.—Abel, O., 1; Delheid, E., 2.
Cetiosaurus.—Bush, L. P., 1.
Cetona, Mte (Tuscany).—Fucini, A., 1.
Ceylon.—Coomáraswámy, A. K., 2 & 5; Launay, L. de, 3; Lomas, J., 6; Prior, G. T., 5.
Chabalis (Savoy).—Lugeon, M., 5.
Chadwick, S. *See Obit.*, Anon., 4.
Chæthomites.—Pampaloni, L., 1.
Chalcopyrite.—Lespineux, G., 1; Schaller, W. T., 1.
Chaleux (Namur).—Van den Broeck, E., 15.
Chalk, Arkansas.—Taff, J. A., 2.
——, Berkshire.—Blake, J. H., 1.
—— boulders, Scania.—Holst, N. O., 1.
——, Carpathian.—Liebus, A., 2.
——, Denmark.—Ravn, J. P. J., 2.
——, dephosphatisation of phosphatic.—Gosselet, J., 3.
——, Devon.—Jukes-Browne, A. J., 4 & 6; Rowe, A. W., 2.
——, Hanover, &c.—Lamplugh, G. W., 2; Wollemann, A., 1 & 3.
——, Herts.—Jukes-Browne, A. J., 6; Woodward, H. B., 2 & 9.
——, Kent, Sussex, &c.—Jukes-Browne, A. J., 6; Woodward, A. S., 8.
——, Nord.—Dollé, L., 1; Lagaisse, —, 1; Lebrun, —, 1.
——, Norfolk.—Elsden, J. V., 5; Jukes-Browne, A. J., 6.

Chalk, Paris Basin.—Canu, F., 2.
——, phosphatic.—Briquet, A., 1 & 2; Lasne, H., 1; Rabelle, —, 1.
——, Provence.—Douvillé, H., 4; Toucas, A., 1.
——, sedimentation of.—Gosselet, J., 4.
——, Suffolk.—Jukes-Browne, A. J., 3 & 6.
——, Wiltshire.—Jukes-Browne, A. J., 6; Reid, C., 7; Rowe, A. W., 1.
——, zones.—Jukes-Browne, A. J., 3 & 6; Rowe, A. W., 1 & 2; Schrammen, A., 1; Woodward, H. B., 7.
Chalk-rubble, Sewerby.—Lamplugh, G. W., 3.
Chalybite.—Hutchinson, A., 1.
Chamblon (Vaud).—Stehlin, H. G., 2.
Champlain, Lake (U.S.A.).—Upham, W., 5.
Charleston (W. Va.).—Campbell, M. R., 3.
Charmouth (Dorset).—Lang, W. D., 1.
Charnwood Forest (Leicester).—Bennett, F. W., 1; Watts, W. W., 1; Woodward, H. B., 6.
Chartres (Eure-et-Loir).—Dollfus, G. F., 5.
Chartronia.—Buckman, S. S., 2; Chartron, C., 1.
Châtel-Saint Denis (Switzerland).—Sarasin, C., 2.
Cheadle (N. Staffs.).—Barrow, G., 1.
Cheesewring, the (Cornwall).—Hull, E., 2.
Cheirodus.—Eastman, C. R., 1.
Cheirolepis.—Mœller, H., 1.
Cheirotherium.—Beasley, H. C., 1.
Cheliphlebia.—Melander, A. L., 1.
Chelonia, Cretaceous.—Andrews, C. W., 1 & 5; Dollo, L., 2; Hay, O. P., 1; Osborn, H. F., 4; Wieland, G. R., 1.
——, Jurassic.—Fraas, E., 2.
——, Tertiary.—Dollo, L., 1 & 2; Fœrster, B., 7; Lœrenthey, E., 2; Lydekker, R., 1; Stefano, G. de, 3.
Cheltenham (Gloucester).—Wethered, E. B., 1.
Chemical classification, eruptive rocks.—Ans, J. d', 1.
—— laboratory, Canad. Geol. Survey.—Hoffmann, G. C., 1; Hungarian Geol. Survey.—Kalecsinsky, A. von, 1.
Chemistry, geology &.—Gans, R., 1; *see also* Soils, &c.
Cher (France).—Lamothe, R. de, 1; Péron, A., 1.
Cherbourg (Normandy).—Bigot, A., 6.
Chert, origin of.—Raisin, C. A., 1.
Cherty limestone, Nile Valley.—Beadnell, H. J. L., 1.
Cheshire.—Edwards, W., 1 & 2; Pickstone, W., 1.
Chesterfield Inlet (Keewatin).—Hanbury, D. T., 1.
Cheviot Hills (Northumberland).—Kendall, P. F., 3.
Chiapas (Mexico).—Collins, H. F., 1.
Chichester (Sussex).—Reid, C., 5 & 6.
Chihuahua (Mex.).—Lakes, A., 7 & 8; Weed, W. H., 2 & 3.
Chiknayakanhalli (Mysore).—Sambasiva Iyer, V. S., 1.
Chile (S. Am.).—Burckhardt, C., 1; Hauthal, R., 1; Labastie, F., 1; Paulcke, W., 1; Salcedo, J. V., 1; Sundt, L., 1.
Chi Li (China).—Drake, N. F., 1; Hoover, H. C., 1; Moller, W. A., 1.
China.—Crick, G. C., 1; Drake, N. F., 1; Frech, F., 1; Hoover, H. C., 1; Moller, W. A., 1; Monke, H., 1; Schellwien, E., 1; Wright, G. F., 1.
Ching Chow Fu (Shantung).—Crick, G. C., 1.
Chipping Sodbury. *See* Sodbury.
Chiropteris.—Seward, A. C., 2.
Chitaldrug (Mysore).—Sambasiva-Iyer, V. S., 1 & 2.
Chiuppano Hills (Venetia).—Patrini, P., 1.
Chlamys.—Ugolini, R., 4.
Chlorite.—Fromme, J., 1; Pettard, W. F., 1.
Chloromelanite.—Colomba, L., 2; Franchi, S., 3.
Chobham Ridges (Surrey).—Monckton, H. W., 3.
Chœrina.—Pavlov, P. S., 2.
Chomatodus.—Eastman, C. R., 1.
Chondrodonta.—Douvillé, H., 5; Hœrnes, R., 2; Schubert, R. J., 3; Stanton, T. W., 1.
Chonetes.—Chapman, F., 1; Weller, S., 2.
Christchurch (N.Z.).—Farr, C. C., 2.
Christmas I.—Skeats, E. W., 1.
Chromite, Baluchistan.—Holland, T. H., 3.
——, United States.—Pratt, J. H., 10.
Chrysocolla.—Lovisato, D., 2; Palmer, C. M., 1.
Chrysodomus.—Nelli, B., 1.
Chrysophrys.—Gorjanović-Kramberger, K., 1.
Chrysostoma.—Bistram, A. von, 1; Gortani, M., 3.
Church Stretton (Salop).—Cobbold, E. S., 1.
Chytra.—Moore, J. E. S., 1.
Cidaris.—Gauthier, V., 1; Longhi, P., 1; Loriol, P. de, 2.
Cilician Taurus (Anatolia).—Schaffer, F. X., 1–3; Toula, F., 1.
Cimini, Monti (Campania).—Fantappié, L., 1; Sabatini, V., 2.
—— tuff, formation of, & Ciminite.—Fantappié, L., 1.
Cimolichthys.—Branner, J. C., 1; Leriche, M., 1.
Cimoliosaurus.—Williston, S. W., 4.
Cincinnati anticline.—Fœrste, A. F., 1.
—— formation, Tennessee.—Fœrste, A. F., 2.

Cinglais, Pays de (Calvados).—Bigot, A., 5.
Cingoli (Marches, Italy).—Moderni, P.. 1.
Cinnabar.—Achiardi, G.d', 5; Lotti, B., 3.
Cinnamomum. — Engelhardt, H., 1; Knowlton, F. H., 1.
Cinulia.—Etheridge. R., Fil., 2.
Cionobrissus.—Gauthier, V., 1.
Cirripede, Tertiary.—Benham, W. B., 1.
Cladiscothallus.—Renault, B., 4.
Cladocora.—Felix, J., 3.
Cladodus.—Eastman, C. R., 1.
Cladopora.—Weller, S., 2.
Claosaurus.—Beecher, C. E., 2.
Clapsavon, Monte (Carnic Alps).—Tommasi, A., 1.
Clarendon (Otago).—Park, J., 1.
Clarke Collection, Woodwardian Museum.—Kurtz, F., 1.
Clathurella.—Cossmann, M., 2.
Clausilia.—Pilsbry, H. A., 1.
Clava.—Hœrnes, R., 1.
Clavagella.—Dollfus, G. F., 6.
Clay, Alsace-Lorraine.—Van Werveke, L., 16.
——, Britanny.—Bézier, T., 1.
——, Camerino.—Mariani, M., 1.
——, Emilia.—Sangiorgi, D., 1.
—— industries, United States.—Middleton, J., 1.
——, Ireland.—Elsden, J. V., 8.
——, magnetism of Royat burnt.—Brunhes, B., 1.
——, Maryland.—Clark, W. B., 3 & 4.
——, nitrogen in. — Miller, N. H. J., 1.
—— pockets, Chalk, Nord. — Dollé, L., 1.
Claypole, E. W. *See Obit.*, Comstock, T. B., 1.
Clee Hill (Shropshire). — Moore, H. C., 1.
Clermont (Queensl.).—Dunstan, B., 2.
Cles (Tyrol).—Tietze, E., 5.
Cleveite.—Barker, G. F., 1.
Cleveland (Yorkshire).—Clark, J. E., 1; Hawell, J., 1; I'Anson, J. C., 1.
Clidastes, Williston, S. W., 2.
Cliffs, Picardy.—Bardou, —, 1.
——, San Diego (Cal.).—Lakes, A., 10.
Clifton Hampden (Oxon).—Pears, T., 1.
Cligga Head (Cornwall).—Scrivenor, J. B., 1.
Climates, evolution of.—Manson, M., 2; Wieland, G. B, 2.
——, geological.—Knipovich, N., 1.
Clinochlore.—Pettard, W. F., 1.
Clinton (N. Terr., S. Austr.).—Brown, H. Y. L., 4; Chewings, C., 1.
Clinton Limestone, Ohio. — Claypole, E., 1.
Clintonia.—Penhallow, D. P., 1.
Close, M. H. *See Obit.*, Anon., 5; Cole, G. A. J., 5.
Cnoc-na-Sroine (Sutherland). — Goodchild, J. G., 11.
Coahuila (Mexico).—Ludlow, E., 1.
Coal, analyses of British.—Anon., 18.
——, —— of Pittsburg.—Haas, F., 1.
——, Australia. — Cameron, W. E., 2; Jackson, C. F. V., 3; Krusch, P., 1; Thompson, J. P., 1.
—— -balls.—Lomas, J., 5.
——, Belgium. *See* Campine, &c.
——, Bengal.—Adamson, T., 1.
——, British Columbia.—Prior, E. G., 1 & 2.
——, British, duration of supply.—Anon., 22; Davies, T. J., 1; Watts, W. W., 2.
——, Canada.—Ingall, E. D., 2.
——, China.—Hoover, H. C., 1; Moller, W. A., 1.
——, Colorado.—Hill, R. T., 2; Lakes, A., 15.
—— -fall Commission, Prussian.—Dobers, —, 1; Meissner, —, 1.
—— from fossil fish.—Sollas, W. J., 3.
——, gases in. — Bedson, P. P., 1; Broockmann, —, 1.
——, German E. Africa.—Macco, A., 1.
——, Gotland Cambrian.—Winkler, C., 1.
——, Great Britain, &c.—Foster, C. Le N., 2.
——, Heraklea.—Simmersbach, B., 1.
——, Hungary.—Kalecsinszky, A. von, 2.
——, Japan.—Anon., 26.
——, Lorraine.—Villain, F., 1.
——, Maryland.—Clark, W. B., 2.
—— Measures. *See* Carboniferous.
——, Mendoza.—Bodenbender, G., 1.
——, Mexico.—Aguilera, J. G., 1; Ludlow, E., 1.; White, W., Jun., 1.
——, Natal.—Gray, C. W., 1.
——, Newcastle (N.S.W.), undersea.—Atkinson, A. A., 1.
——, Nord & Pas-de-Calais.—Févre, —, 1; *see also* Boulonnais, &c.
——, Northumberland, undersea.—Forster, T. E., 1.
——, Nova Scotia.—Gilpin, E., Jun., 1 & 2.
——, Nyassa.—Henderson, J., 2.
——, Pennsylvania.—Adams, T. K., 1.
——, Rhenish Bavaria. — Ammon, L. von, 1.
——, Royal Commission.—Anon., 22.
——, Saghalin I.—Hawes, C. H., 1.
——, salt-water in. — Cornet, J., 1; Gevers-Orban, E., 1.
——, Tasmania.—Twelvetrees, W. H., 2 & 5.
——, Tomsk.—Peetz, H. von, 1.
——, Trinidad.—Anon., 20; Guppy, R. J. L., 1.
——, United States, occurrence. — Parker, E. W., 1.
——, Washington (U.S.A.). — Landes, H., 1.
——, White Horse, Yukon. — Brewer, W. M., 1.
——, Wyoming.—Knight, W. C., 1.

Coalfields, Africa (S.).—Molyneux, A. J. C., 1; Sawyer, A. R., 2 & 3.
——, Alabama.—Hayes, C. W., 2.
——, Alaska.—Brooks, A. H., 1; Kirsopp, J., Jun., 1.
——, Appalachian (N.). — White, D., 3.
——, Austria & Saxony. — Meissner, —, 1.
——, Belgium.—Dobers, —, 1; Harzé, É., 1 & 2; Kersten, J., 1 & 2; Lejeune de Schiervel, C., 1; Lohest, M., 1; Simoëns, G., 4–8; Stainier, X., 1–4.
——, Bohemia. — Bathe, E., 1; Meissner, —, 1; Weithofer, K. A., 1.
——, China.—Drake, N. F., 1.
——, Cumberland. — Arber, E. A. N., 3.
——, Dumfries.—Kidston, R., 2.
——, France.—Delafond, F., 1; Deville, Ste.-Cl., 1; Dobers, —, 1; Grossouvre, A. de, 5; Léon, —, 1.
——, Illinois & Indiana.—Ashley, G. H., 1 & 2.
——, India.—Grover, F., 1; Grundy, J., 1; Holland, T. H., 3; Stonier, G. A., 1 & 2.
——, Kansas.—Crane, W. R., 2.
——, Michigan.—Lane, A. C., 1 & 2.
——, Missouri.—Bain, H. F., 1.
——, Montana.—Rowe, J. P., 1.
——, New South Wales.—Pittman, E. F., 1; *see also* Australia.
——, Pacific Coast (U.S.A.). — Smith, G. O., 1.
——, Pennsylvania. — Heurteau, C. E., 1; Simmersbach, B., 1; Stœk, H. H., 1.
——, Rocky Mts. (U.S.A.).—Stobbs, L. S., 1.
——, Saarbrück.—Meyer, G., 1.
——, Sabero.—Mallada, L., 1.
——, Staffordshire (N.).— Barrow, G., 1; Cadman, J., 1; Hind, W., 7; Stobbs, J. T., 3; Turner, E. P., 1.
——, United States, occurrence in. — Day, D. T., 1; Hayes, C. W., 1.
——, ——, Eastern States. — Woodworth, J. B., 1.
——, ——, Southwestern States.—Taff, J. A., 1; *see also* Illinois, &c.
——, Virginia (W.).—Heurteau, C. E., 1; Simmersbach, B., 1; Woodworth, J. B., 2.
——, Wales (S.).—Jordan, H. K., 1; Strahan, A., 2–5.
——, Westphalia.—Middelschulte, A., 1.
——, Yubari.—Anon., 26.
Coast, Chile.—Sundt, L., 1.
Coast-erosion.—Cole, G. A. J., 1; Lakes, A., 12.; O'Reilly, J. P., 1.
Coast-Ranges, California.—Lawson, A. C., 1.
Cobalt.—Caballero, G. de J., 1; Johnsen, A., 1; Pratt, J. H., 2.
Coblentz (Rh.-Prussia). — Delkeskamp, R., 2.
Coccosteus.—Sollas, W. J., 3.
Cochise Co. (Ar.).—Dumble, E. T., 1.
Cochlespirella.—Casey, T. L., 1.
Cochlops.—Scott, W. B.
Cockroaches, Carboniferous. — Sellards, E. H., 1.
Codiopsis.—Lambert, J., 2.
Codonotheca.—Sellards, E. H., 2.
Cœlacanthus.—Eastman, C. R., 1.
Cœlenterata, geological zones &.—Goodchild, J. G., 4.
Cœlocystis.—Schuchert, C., 5.
Cœlodus.—Gorjanović-Kramberger, K., 1; Leriche, M., 1; Longhi, P., 1.
Cœlostylina.—Chartron, C., 1.
Cœnotherium.—Depéret, C., 3.
Cogne (Graian Alps).—Bonney, T. G., 3.
Collie (W. Austral.).—Krusch, P., 1.
Collingwood (N.Z.).—Park, J., 2.
COLLINS, A. L. See *Obit.*, Lapworth, C., 1.
Colombia (S. Am.).—White, R. B., 1.
Colorado (U.S.A.).—Crosby, W. O., 2; Davis, W. M., 2; Eldridge, G. H., 1; Fellows, A. L., 1; Fenneman, N. M., 1; Hatcher, J. B., 2; Hill, R. T., 2; Lakes, A., 1, 4, 5, 9, 15; Lay, H. C., 1; Matthew, W. D., 3; Ransome, F. L., 1; Read, T. T., 1; Richard, T. A., 1; Stearns, R. E. C., 1; Stobbs, L. S., 1; Welles, A. M., 1; Yunge, G., 1.
Columbus (Ga.).—McCallie, S. W., 2.
Colymbus.—Regàlia, E., 1.
Combe-Payne Hill (Dorset). — Woodward, H. B., 10.
Comets.—Shaw, F. G.
Como, Lake (N. Italy).—Artini, E., 2; Flores, E., 3.
Comoseris.—Osasco, E., 1.
Compsognathus.—Nopčsa, F. von, Jun., 8.
Comstock (Tasm.).—Waller, G. A., 2.
Concannon Farm, Lansing (Kan.). — Winchell, N. H., 3.
Conchidium.—Lotz, H., 1.
Concretionary limestone, Mysore. — Wetherell, E. W., 4.
Concretions, calcareous.—Hogg, E. G., 1.
——, Coal-Measure.—Lomas, J., 5.
——, Creechbarrow.—Hudleston, W. H., 1.
——, oolitic.—Erdmann, E., 1; Raisin, C. A., 1.
——, shore.—Du Bois, G. C., 1.
Concud (Spain). — Woodward, A. S., 4.
Condicote (Gloucester). — Richardson, L., 4.
Condroz massif (Namur).—Simoëns, G., 1.
Conducia (Portuguese E. Africa). — Choffat, P., 2 & 3.
Cone-in-cone structure.—Reis, O. M., 1.
Confusastræa.—Osasco, E., 1.

Congeria.—Pavlov, P. S., 1.
Conglomerates, Bleiberg.—Hœfer, H., 2.
——, Bukhara gold-.—Levat, E. D., 1.
——, Malmedy.—Van Werveke, L., 1.
——, Permian.—Kendall, P. F., 1.
——, quartz-etching in.—Fuller, M. L., 2.
——, Rhein-Hesse Quaternary.—Schopp, H., 1; Swiss Quaternary.— Rollier, L., 1.
——, Sydenham (Vict.).—Hart, T. S., 1.
——, Ural Mts.—Duparc, L., 7.
Congo Free State (Equatorial Africa).—Cornet, J., 5; Katanga, A., 1.
Congress, Geological, Vienna, 1903.—Anon., 30.
——, Seismological. — Montessus de Ballore, F. de, 4.
Connecticut (U.S.A.).—Hobbs, W. H., 1, 3, 4 & 6.
Conoclypeus.—Checchia-Rispoli, G., 1; Gauthier, V., 1.
Conocyathus.—Dennant, J., 1.
Conrad Collection.—Casey, T. L., 1.
Contact-deposits, Alaska.—Thomæ, W. F. A., 1.
—— ——, origin of.—Lindgren, W., 2; Weed, W. H., 5.
—— metamorphism. — Achiardi, G. d', 1; Dalmer, K., 1; Weinschenk, E., 4; *see also* Metamorphism, Ores, &c.
—— minerals.—Fromme, J., 1.
Continents, origin of.—Mackie, W., 2.
Contraction-cylinder, igneous rock. — Kueppers, E., 1.
Conularia.—Walther, K., 1.
Conus.—Casey, T. L., 1.
Cook Inlet (Alaska).—Kirsopp, J., Jun., 1.
Coolgardite.—Spencer, L. J., 1.
Coorongite.—Cumming, A. C., 1.
Copenhagen (Denmark).—Zachariæ, —, 1.
Copiapite.—Schaller, W. T., 1.
Copper, Alsace-Lorraine. — Schweitzer, J., 1.
——, Arizona.—Palmer, C. M., 1.
——, Bathurst Inlet. — Hanbury, D. T., 1.
——, British Columbia.—Johnson, P., 1.
——, Canada. — Dickson, C. W., 1; Ingall, E. D., 2.
——, Colorado.—Ransome, F. L., 1.
——, Congo Free State.—Cornet, J., 5; Katanga, A., 1.
——, crystallized.—Ites, P., 1.
——, Harz.—Hornung, F., 1.
——, Lake Superior.—Grant, U. A., 1.; Vattier, C., 1.
——, Mexico.—Aguilera, J. G., 1.
——, Michigan.—Jackson, J. F., 1.
——, New Jersey.—Kuemmel, H. B., 1; Weed, W. H., 6.
——, New South Wales.—Pittman, E. F., 1.
——, Nova Scotia.—Gilpin, E., Jun., 1.
——, Old Red Sandstone, Scotland.—Mackie, W., .
Copper, Peru.—Stevanovič, S., 1.
——, Prussian Saxony.—Naumann, E., 1.
——, Queensland.—Ball, L. C., 3; Cameron, W. E., 2.
——, Sardinia.—Rimatori, C., 2.
——, Styria.—Redlich, K. A., 1.
——, Tasmania.—Waller, G. A., 3.
——, Tennessee.—Kemp, J. F., 3.
——, Turkestan.—Levat, E. D., 1.
——, United States production.—Day, D. T., 1; Kirchoff, C., 1.
——, Virginia & N. Carolina.—Watson, T. L., 1.
Coprolites, *Iguanodon.*—Bertrand, C. E., 1.
Coral, disintegration of.—Duerden, J. E., 1.
—— islands, Pacific.—Reed, F. R. C., 3.
—— ——, limestone, composition. — Skeats, E. W., 1.
—— -reefs, Bermuda, &c.—Verrill, A. E., 1 & 2.
—— ——, destruction by algæ, &c.—Gardiner, J. S., 2.
—— ——, formation of.—Agassiz, A., 2; Gardiner, J. S., 1; Strijov, I. N., 1.
—— ——, Pacific. — Agassiz, A., 1 Sherlock, R. L., 1.
—— ——, Pemba.—Crossland, C., 1.
Corals, Carboniferous.—Angelis d'Ossat, G. de, 2.
——, Cretaceous.—Felix, J., 1–3; Longhi, P., 1; Shattuck, G. B., 1; Volz, W., 1.
——, Devonian. — Beecher, C. E., 1; Benecke, E. W., 4; Penecke, K. A., 1; Schuchert, C., 4; Weller, S., 2.
——, Jurassic.—Bistram, A. von, 1; Steinmann, G., 4.
—— ——, in N. German Drift.—Oppenheim, P., 4.
——, reef-building.—Verrill, A. E., 2.
——, Rhætic.—Tomes, R. F., 1.
——, Silurian.—Etheridge, R., Fil., 3; Goodchild, J. G., 4; Weller, S., 2.
——, Tertiary. — Angelis d'Ossat, G. de, 4; Dennant, J., 1; Felix, J., 3; Oppenheim, P., 2 & 6; Osasco, E., 1; Savornin, J., 1; Steinmann, G., 3.
——, Triassic.—Angelis d'Ossat, G. de, 5; Papp, C., 1; Tomes, R. F., 1.
Corax.—Leriche, M., 1.
Corbicula.—Etheridge, R., Fil., 2.
Corbis.—Bistram, A. von, 1; Dacqué, E., 1.
Corbula.—Casey, T. L., 1; Dollfus, G. F., 6; Franchis, F. de, 1.
Corbulomya.—Dollfus, G. F., 6.
Cordaicladus.—Zeiller, R., 2.
Cordierite.—Fromme, J., 1; Lacroix, A., 8.
Corfield, W. H. *See Obit.*, Woodward, H., 10.
Cork, Co. (Ireland).—Muff, H. B., 1.

Corniferous Limestone, Ohio.—Claypole, E. W., 1.
Cornon (Tyrol).—Ippen, J. A., 2.
Cornuspira.—Schick, T., 1.
Cornwall.—Collins, J. H., 1; Flett, J. S., 1; Fox, H., 1 & 2; Hill, J. B., 1; Hull, E., 2; Hutchinson, A., 1; Johnson, J. P., 1; Kennard, A., 1; Parkinson, J., 1; Reid, C., 2; Scrivenor, J. B., 1; Ussher, W. A. E., 1; Woodward, H., 1
Corsica, I. of.—Castelnau, P., 1; Rikli, M.. 1; Tornquist, A., 4.
Corundum, Ceylon. — Coomáraswámy, A. K., 2.
——, Mysore.—Primrose, A., 1.
——, United States.—Kunz, G. F., 3; Lawson, A. C., 2; Pratt, J. H., 5.
Corvus.—Regàlia, E., 1.
Corydon (Ind.).—Ashley, G. H., 1.
Cossa, A. *See Obit.*, Mattirolo, E., 1 & 2.
Costa, O. G. *See* Fornasini, C., 2.
Cotteswold Hills (Gloucester, &c.). — Buckman, S. S., 4; Richardson, L., 4.
Cottian Alps. *See* Alps.
Cottonwood Limestone, Kansas.—Beede, J. W., 3.
Couasme, Buttes de (Ille-et-Vilaine).—Kerforne, F., 2.
Coux, Col de (Savoy). — Preiswerk, H., 1.
Cowley (Gloucester). — Richardson, L., 1.
Crag, East Anglian.—Monckton, H. W., 1 & 6.
Crake-Low Farm (Derby). — Arnold-Bemrose, H. H., 1.
Crania.—Weller, S., 2.
Craniella.—Chapman, F., 1.
Crassatellina.—Yakovlev, N., 1.
Crassatellopsis.—Maurer, F., 1.
Cratægus.—Knowlton, F. H., 1.
Craticularia. — Ungern-Sternberg, E. von, 1.
Crater Lake (Or.).—Bonney, T. G., 9; Diller, J. S., 3.
——, Soufrière, St. Vincent.—Sapper, K., 12.
Crayford (Kent).—Salter, A. E., 1.
Creechbarrow (Dorset).—Hudleston, W. H., 1.
Creede (Colo.).—Lakes, A., 6.
Creniceras.—Loriol, P. de, 1.
Cretaceous, Algeria.—Fourtau, R., 2; Ritter, E., 1; Riaz, A. de, 1.
——, Andes. — Burckhardt, C., 1; Paulcke, W., 1.
——, Antarctic.—Weller, S., 1.
——, Apulia.—Franchis, F. de, 1.
——, Argentina. — Ameghino, F., 2; Burckhardt, C., 1.
——, Ariège.—Carez, L., 5 & 7.
——, Arkansas.—Taff, J. A., 2.
——, Australia.—Thompson, J. P.,
——, Austria (U.).—Felix, J., 2.
——, Baluchistan.—Nœtling, F., 1.
——, Bedfordshire.—Home, H., 1.
Cretaceous, Belgium.—Lambert, J., 3.
——, Berks.—Lamplugh, G. W., 1.
——, Bohemia & Saxony.—Petrascheck, W., 1.
——, Boulonnais.—Rigaux, E., 1.
——, Canada.—Hatcher, J. B., 1; Osborn, H. F., 4.
——, Cape Colony.—Rogers, A. W., 3.
——, Chile.—Paulcke, W., 1.
——, classification of.—Dollfus, G. F., 3.
——, Crete, I. of.—Cayeux, L., 2.
——, Dakota (S.).—Lucas, F. A., 6.
——, Denmark.—Ravn, J. P. J., 1 & 2.
——, Dorset.—Lang, W. D., 1.
——, Egypt.—Beadnell, H. J. L., 1; Dacqué, E., 1; Fourtau, R., 3.
——, England.—Jukes-Browne, A. J., 6; Lamplugh, G. W., 1; Rowe, A. W., 2; Woodward, A. S., 8; *see also* Berks, &c.
——, Fribourg (Switzerland).—Sarasin, C., 2.
——, Goritz.—Hœrnes, R., 2.
——, Greece.—Cayeux, L., 1.
——, Hanover.—Lamplugh, G. W., 2; Wollemann, A., 1 & 3.
——, Haute-Garonne, &c.—Carez, L., 4.
——, Hungary.—Liebus, A., 2; Pálfy, M. von, 2; Pethœ, J., 3.
——, Japan.—Yabe, H., 1.
——, Kansas.—Eaton, G. F., 2; Lindgren, W., 2.
—— land-mollusca, Oppeln.—Michæl R., 2.
—— limestone, Calloneghe. — Longhi, P., 1.
——, Lippe-Schaumburg.—Harbort, E., 1.
——, Maryland. — Clark, W. B., 1 & 4.
——, Montana.—Rowe, J. P., 1; Stanton, T. W., 2; Willis, B.. 1.
——, Montenegro.—Antula, J., 1.
——, Mozambique. — Choffat, P., 2 & 3.
——, Nebraska.—Barbour, E. H., 1.
——, New Jersey.—Parsons, A. L., 1.
——, Nord.—Leriche, M., 1.
——, Oregon.—Washburne, C., 1.
——, Paris Basin.—Canu, F., 2.
——, Patagonia.—Ameghino, F., 6.
——, Persia.—Cotteau, G., 1.
——, Provence.—Jacob, C., 1; Pellat, E., 1.
——, Queensland.—Gregory, J. W., 6.
——, Rumania.—Sevastos, R., 2.
——, Russia.—Bogoslovski, N. A., 1; Borisiak, A., 1.
——, Salt Range.—Koken, E., 2; Seeley, H. G., 1.
——, Servia.—Eletz, V. M., 1.
——, Silesia.—Scupin, H., 1; Uhlig, V., 1.
——, Sokotra.—Kossmat, F., 1.
——, Texas, &c.—Shattuck, G. B., 1.
——, Tunis.—Pervinquière, L., 1.
——, Umbria.—Lotti, B., 1.

Cretaceous, Venetia.—Airaghi, C., 2; Oppenheim, P., 5.
——, Wiltshire.—Reid, C., 7; Rowe, A. W., 2.
——, Wyoming.—Hatcher, J. B., 1.
——. *See also* Danian, &c.
Crete, I. of.—Cayeux, L., 2–6.
Creuse (France).—Michel-Lévy, A., 1.
Creusot, (Saône-et-Loire). — Delafond, F., 1.
Crewe (Cheshire).—Edwards, W., 1.
Cribroblastus.—Hambach, G., 1.
Crinoidea, Carboniferous.—Beede, J. W., 1.
——, Cretaceous. — Loriol, P. de, 2; Wollemann, A., 1.
——, Devonian.—Drevermann, F., 2; Hambach, G., 1.
——, Silurian. — Grabau, A. W., 1; Schuchert, C., 5.
Crioceras.—Sarasin, C., 2.
Cristellaria.—Schick, T., 1.
Croatia.—Gorjanovič-Kramberger, K., 2; Lapouge, G. de, 2.
Crocoisite.—Pettard, W. F., 1.
Cross Hands (Caermarthen).—Strahan, A., 3.
Crowle (Worcester).—Richardson, L., 3.
Crow's Nest (N.W. Canada).—Lakes, A., 11.
Crozon (Britanny).—Barrois, C., 5.
Crumlin (Antrim).—Gurney, H. P., 1.
Crustacea, Carboniferous.—Baldwin, W., 2; Rogers, A. F., 1.
——, classification of.—Packard, A. S., 2.
——, evolution of.—Woodward, H., 12.
——, Tertiary.—Fœrster, B., 5; Woodward, H., 5.
——. *See also* Trilobites, &c.
Cryolite.—Baud, E., 1; Pratt, J. H., 7.
Cryphæus.—Walther, K., 1.
Cryptogams, Palæozoic.—Renault, B., 1; Scott, D. H., 1; *see also* Plants.
Cryptospira.—Cossmann, M., 2.
Crystalline boulders, Sylt, &c.—Petersen, J., 1.
—— rocks, Maryland.—Bascom, F., 1.
—— schists, granite &.—Greenly, E., 1; *see also* Metamorphic, &c.
Crystallization, mineral inter-.—Delkeskamp, R., 1; Muegge, O., 1.
——, order of mineral.—Dœlter, C., 1; Fedorov, E. S., 4.
Crystallography.—Fedorov, E. S., 2–6; Geinitz, E., 1; Miers, H. A., 2; Rogers, A. F., 3; Sprockhoff, M., 1; Tschermak, G., 1; Viola, C., 1, 3 & 4; Williams, G. H., 1; Wright, F. E., 1.
——, 1901–1902.—Morley, H. F., 1.
Crystals, classification of.—Wallerant, F., 1.
——, etched figures.—Goldschmidt, V., 1 & 3.
——, formation of.—Gaubert, P., 1.
——, gnomonic projection. — Smith, G. F. H., 2.
——, primitive form of. — Wallerant, F., 2.
Crystals, rock-section.—Stœber, F., 2.
——, structure of.—Baumhauer, H., 1; Viola, C., 1, 3 & 4.
——, symmetry of.—Melczer, G., 2; Sommerfeldt, E., 1.
——, twinning of.—Viola, C., 5; Johnsen, A., 2.
Ctenacanthus.—Eastman, C. R., 1.
Ctenodonta.—Drevermann, F., 2; Maurer, F., 1; Walther, K., 1; Weller, S., 2.
Ctenodus.—Leriche, M., 1.
Ctenomys.—Ameghino, F., 2.
Ctenopteris.—Penhallow, P. D., 1.
Cuba (W. I.).—Birkinbine, J., 1; Eigenmann, C. H., 1.
Cucullæa.—Burckhardt, C., 1; Dacqué, E., 1; Shattuck, G. B., 1.
Cucullella.—Maurer, F., 1; Walther, K., 1.
Cucuron (Vaucluse).—Savornin, J., 2.
Cue (W. Austral.).—Campbell, W. D., 1.
Cuesmes (Hainault).—Kersten, J., 1.
Cuillin Hills (Skye, I. of).—Harker, A., 1.
Culm, Hesse.—Parkinson, H., 1.
——, Rhenish Prussia. — Drevermann, F., 2.
Cumberland. — Anon., 18; Arber, E., A. N., 3; Burns, D., 1; Kendall, P. F., 1; Nall, W., 1; Postlethwaite, J., 1; Walker, E. E., 1; Walker, W. E., 1.
Cumbraes Is. (Scotland).—Gunn, W., 1.
Cupro-uranite.—Buchholz, Y., 1.
Cushendall (Antrim). — Knowles, W. J., 2.
Cutch (India).—Kitchin, F. L., 1.
Cuyuni River (Brit. Guiana). — Harrison, J. B., 1.
Cyathomorpha & *Cyathophora.*—Osasco, E., 1.
Cyathophyllum.—Penecke, K. A., 1.
Cyathosmilia.—Dennant, J., 1.
Cycad-fruits.—Compter, G., 1.
Cycadocarpedium, *Cycadocephalus*, & *Cycadospadix.*—Nathorst, A. G., 2.
Cyclammina.—Herrmann, A., 1; Liebus, A., 2.
Cyclolites.—Felix, J., 2 & 4; Longhi, P., 1.
Cyclolobus.—Gortani, M., 3.
Cyclus.—Rogers, A. F., 1.
Cylindrobullina.—Bistram, A. von, 1; Chartron, C., 1.
Cyllene.—Cossmann, M., 2.
Cyonasua.—Ameghino, F., 4.
Cyperacetes.—Knowlton, F. H., 1.
Cyphaspis.—Weller, S., 2.
Cyphastræa.—Felix, J., 3.
Cyphosoma.—Paulcke, W., 1.
Cypræa.—Shattuck, G. B., 1.
Cypricardella.—Maurer, F., 1.
Cyprina & *Cytherea.*—Etheridge, R., Fil., 2.
Cyprus.—Agamennone, G., 1; Bate, D. M. A., 1; Woodward, H., 6.
Cyrtina. — Bittner, A., 1; Œhlert, D. P., 1; Weller, S., 2.

Cyrtodontarca.—Yakovlev, N., 4.
Czarkowy (Russian Poland).—Shkljarevski, A., 1.
Czekanowskia.—Mœller, H., 1.

Dacite, Caucasus. — Lœwinson-Lessing, F., 1.
——, Oregon.—Diller, J. S., 3.
Dadoxylon.—Scott, D. H., 1.
Daghestan Gov. (Caucasus).—Golubyatnikov, D. V., 1; Vernadski, V., 1.
Dahlonega (Ga.).—Eckel, E. C., 1.
Dakota (U.S.A.). — Irving, J. D., 1; Lucas, F. A., 3 & 6; Richardson, G. B., 1; Stobbs, L. S., 1; Todd, J. E., 1.
Dalecarlia (Sweden).—Lœfstrand, G., 1.
Dalmanella.—Weller, S., 2.
Dalmatia.—Bittner, A., 1; Bukowski, G. von, 1; Hœrnes, R., 2; Kerner, F. von, 1–6; Kittl, E., 1; Schubert, R. J., 1–3; Tietze, E., 4.
Damour, A. A. *See Obit.*, Voit, C., 1.
Danburite.—Weber, M., 2.
Danian.—Grossouvre, A. de, 3; Ravn, J. P. J., 1.
Dannemora (Upsala).—Launay, L. de, 4.
Danube R. (Lower).—Schafarzik, F., 5; Treitz, P., 2.
—— (Upper).—Haag, F., 1.
Daonella.—Tornquist, A., 3.
Dapedius.—Deecke, W., 2.
Darjiling (Himalayas).—Freshfield, D. W., 1.
Darmstadt (Hesse). — Chelius, C., 1; Klemm, G., 1; Kueppers, E., 1.
Dartmoor (Devon).—Worth, R. H., 1.
Darwin, Mt. (Tasmania). — Waller, G. A., 3.
Darwinia.—Penecke, K. A., 1.
Darwinism.—Anon., 37.
Dasypus.—Ameghino, F., 2.
Dates of publication of certain vertebrate fossil-names.—Bush, L. P., 1.
Datolite.—Papov, S. P., 1; Slavik, F., 1.
Dauphiné (France).—Belloc, E., 1; Fliche, P., 1; Kilian, W., 1, 2, 6; Frech, F., 1; Loriol, P. de, 2; Martin, D., 1; Termier, P., 3.
Davidstow (Cornwall).—Parkinson, J., 1.
Dawson, G. M. *See Obit.*, Adams, F. D., 2; Ami, H. M., 6; Harrington, B. J., 1.
Day Dawn (W. Austral.).—Campbell, W. D., 1.
De Aar (Cape Colony).—Barker, T. V., 1.
Dead Sea (Palestine).—Blanckenhorn, M., 4.
Dean, Forest of (Gloucester).—Moore, H. C., 1.
Death Valley (Cal.).—Campbell, M. R., 1 & 2.
Deccan (India).—Strachey, R., 1.
Defrance collection, Caen.—Bigot, A., 2.
Deister Mts. (Hanover).—Stille, H., 1; Wunstorf, W., 1.
Delaware Valley (N.J.). — Weller, S., 2.
Delme (Lorraine).—Van Werveke, L., 17.
Delphinula.—Etheridge, R., Fil., 2.
Delphinus.—Koch, A., 4.
Delta-plain, Massachusetts.—Mills, F. S., 1.
Deltodus.—Eastman, C. R., 1.
Den Hill (Tasmania).—Twelvetrees, H. W., 1.
Denckmannia.—Buckman, S. S., 2.
Dendracis.—Osasco, E., 1.
Dendrogyra.—Felix, J., 2.
Dendrophyllia & *Dendrosmilia.*—Felix, J., 3.
Denham (Bucks).—Howe, J. A., 1.
Denmark. — Ravn, J. P. J., 1 & 2; Ussing, N. V., 1; Wesenberg-Lund, C., 1; Zachariæ, —, 1.
Density, sea-water.—Arçtowski, H., 4; Thoulet, J., 1.
Dentalium.—Casey, T. L., 1; Etheridge, R., Fil., 2.
Denudation, experiments with fresh & salt water.—Joly, J., 2.
Denver (Colo.).—Fairchild, H. Le R., 1; Henderson, J., 1; Lakes, A., 15.
Deposition, mechanism of.—Blake, J. F., 2.
Derbent (Daghestan).—Golubyatnikov, D. V., 1.
Derbyshire.—Arnold-Bemrose, H. H., 1; Dawkins, W. B., 1; Moore, S., 1; Stobbs, J. T., 2.
Dercetis.—Woodward, A. S., 8.
Deroceras.—Buckman, S. S., 2.
Desert sandstone, Australia.—Thompson, J. P., 1.
Deserts, Asia (Central).—Hedin, S., 1.
——, Colorado.—Stearns, R. E. C., 1.
——, origin of.—Stromer, E. von, 1.
Desmine.—*See* Stilbite.
Desmoceras.—Etheridge, R., Fil., 2.
Desmophyllum.—Dennant, J., 1.
Deuterotherium.—Ameghino, F., 4.
Deutschbrod (Bohemia).—Hinterlechner, K., 2.
Devitrification, igneous rock.—Bonney, T. G., 12.
Dévoluy (France).—Fliche, P., 1.
Devonian, Alsace-Lorraine.—Jækel, O., 1.
——, Arctic.—Kayser, E., 1.
——, Argentina.—Bodenbender, G., 1.
——, Asia Minor.—Penecke, K. A., 1.
——, Bohemia.—Jahn, J. J., 1.
——, classification of the Upper.—Kayser, E., 2.
——, Cornwall.—Woodward, H., 1.
——, Hesse.—Denckmann, A., 1.
—— iron-ores, Germany (N.W.).—Harbort, E., 2.
——, Maryland.—Clark, W. B., 3; Schuchert, C., 6.
——, Missouri.—Keyes, C. R., 1.
——, Moravia.—Bock, H., 1; Kretschmer, F., 1.

Devonian, Nassau.—Drevermann, F., 1; Lotz, H., 2; Maurer, F., 1.
——, New Jersey.—Weller, S., 2.
——, New York.—Cleland, H. F., 1; Talbot, M., 1.
——, Nova Scotia.—Ami, H. M., 3.
——, Ohio Basin.—Claypole, E. W., 1; Prosser, C. S., 2.
——, Ontario.—Shimer, H. W., 1.
——, Pas-de-Calais.—Gosselet, J., 6.
——, Rhenish Prussia.—Drevermann, F., 2.
——, Russia.—Duparc, L., 5 & 7; Schuchert, C., 4.
——, St. Helen's I.—Nolan, A. W., 1.
——, Sudan.—Haug, E., 3.
——, Tennessee.—Fœrste, A. F., 3.
——, United States.—Schuchert, C., 4.
Devonshire.—Collins, J. H., 1; Hamling, J. G., 1; Hunt, A. R., 1, 5, 7, & 8; Jukes-Browne, A. J., 4; Lowe, H. J., 1; Reid, C., 2; Rowe, A. W., 2; Shrubsole, O. A., 1; Small, E. W., 1; Somervail, A., 1-3; Ussher, W. A. E., 1; Worth, R. H., 1.
Dhuis R. (Aisne).—Babinet, —, 1.
Diabase, Bohemia.—Hinterlechner, K., 1.
——, Hesse.—Harbort, E., 2; Heineck, F., 2.
——, Maryland.—Clark, W. B., 4.
——, Saxony,—Beck, R., 1.
——, Sudan.—Lacoin, —, 1.
——, Tasmania.—Stephens, T., 1.
Diamonds, Africa (S.).—Merrill, G. P., 3.
——, Brit. Guiana.—Hargreaves, T. S., 1.
——, Indiana.—Blatchley, W. S., 3.
——, United States.—Hobbs, W. H., 2; Kunz, G. F., 3.
——, Ural.—Mamontov, V. N., 1.
Diana.—Pavlov, P. S., 2.
Diaphorite.—Hulyák, V., 1.
Diaspites,—Pampaloni, L., 1.
Diatomaceous earth, Arizona.—Blake, W. P., 3.
—— ——, Australia (W.).—Maitland, A. G., 1.
—— ——, Gotland.—Post, L. von, 1.
Diatryma.—Lucas. F. A., 8.
Diceras.—Franchis, F. de, 1.
Diceratosaurus.—Jækel, O., 2.
Dictyonema (?).—Hind, W., 2.
——-slates, Nova Scotia.—Ami, H. M., 4; Poole, H. S., 2.
Dictyoneura & *Dieconeura.*—Melander, A. L., 1.
Dictyozamites.—Mœller, H., 1; Seward, A. C., 1.
Dikelocephalus.—Weller, S., 2.
Dillenburg (Nassau).—Harbort, E., 2; Lœcke, —, 1; Lotz, H., 2.
Dimorphastræa.—Felix, J., 7; Osasco, E., 1.
Dimorphina.—Liebus, A., 2.
Dimorphocella.—Maplestone, C. M., 1.
Dimorphoceras.—Smith, J. P., 1.
Dimyopsis.—Bistram, A. von, 1.
Dinlleyn, Porth- (Caernarvon).—Cope, T. H., 1.
Dinocyon.—Matthew, W. D., 1.
Dinosauria, Belgian.—Dollo, L., 3.
——, Cretaceous.—Beecher, C. E., 2; Lucas, F. A., 1 & 6; Nopčsa, F. von, Jun., 2.
——, extinction of.—Andrews, C. W., 2.
——, Jurassic.—Hatcher, J. B., 2; Riggs, E. S., 1.
—— nomenclature of.—Nopčsa, F. von, Jun., 4.
——, Triassic.—Nopčsa, F. von, Jun., 1; Woodward, A. S., 7.
Dinotherium.—Venukov, P. I., 1.
Dionide.—Reed, F. R. C., 5.
Dioonites.—Nathorst, A. G., 2.
Diopside.—Weinschenk, E., 3.
Diorite, Alpes-Maritimes.—Roccati, A., 1.
——, Austria (Lr.).—Morozevich, I., 1.
——, Bohemia.—Hinterlechner, K., 1.
——, definition of.—Osann, A., 5.
——, Ireland.—Joly, J., 6.
——, Montenegro.—Manasse, E., 1.
——, Mysore.—Slater, H. K., 1.
——, Tyrol.—Ippen, J. A., 3; Hammer, W., 2.
Diospyros.—Knowlton, F. H., 1.
Dipeltis.—Melander, A. L., 1.
Diphyodus.—Osborn, H. F., 4.
Diplocaulus.—Jækel, O., 2.
Diploctenium.—Felix, J., 4; Longhi, P., 1.
Diplodocus.—Nopčsa, F. von, Jun., 2.
Diplopora.—Benecke, E. W., 2.
Diploria.—Felix, J., 2; Osasco, E., 1.
Diprotodon.—Ameghino, F., 1 & 5.
Discoides.—Gauthier, V., 1; Lambert, J., 1.
Disodile.—Pampaloni, L., 1.
Dissacus.—Boule, M., 2.
Ditremaster.—Gauthier, V., 1.
Ditremaria.—Etheridge, R., Fil., 2.
Djebel Amour (Algeria).—Ritter, E., 1.
Dobrudscha (Rumania).—Butureanŭ, V. C., 3.
Docca (Tuscany).—Trabucco, G., 1.
Dolerite, Glyn Ceiriog.—Moore, E. C., 1.
——, Ireland.—Joly, J., 6.
——, Mysore.—Wetherell, E. W., 2.
——, Transvaal.—Sawyer, A. R., 3.
Dolichorhynchops.—Williston, S. W., 1 & 4.
Doliochœrus.—Depéret, C., 3.
Doliolina-limestone, China.—Schellwien, E., 1.
Doller R. (Alsace-Lorraine).—Deecke, W., 3; Van Werveke, L., 14.
Dolomite, Alsace-Lorraine.—Schuller, J., 1.
——, Crete.—Cayeux, L., 6.
——, Hanover.—Kœnen, A. von, 2.
——, Lugano Alps.—Bistram, F. von, 2.
——, origin of.—Pfaff, F. W., 1.
——, Simplon Tunnel.—Spezia, G., 1.
——, Tasmania.—Pettard, W. F., 1.

Dolomite, Tyrol.—Geyer, L., 1.
——, Vosges.—Delépine, G., 1.
Dolomitization, de-. — Teall, J. J. H., 2.
Dombes (Ain, &c.).—Boistel, A.
Domes, Indiana Silurian.—Kindle, E. M., 1.
Domeykite.—Kœnig, G. A., 1; Stevanovič, S., 1.
Dominica (W.I.).—Morris, Sir D., 1; Sapper, K., 8.
Donard (Co. Wicklow).—Seymour, H. J., 2.
Donetz Basin (Russia).—Borisiak, A., 1; Yakovlev, N., 4; Zalesski, M., 1.
Donnybrook (Queensl.).—Cameron, W. E., 3.
Donon (Alsace-Lorraine).—Brunzel, K., 1.
Dopperlite.—Moss, R. J., 1.
Dordogne (France).—Martel, E. A., 4; Moissan, H., 2; Rivière, E., 1.
Dorset.—Andrews, W. R., 1; Darwin, H., 1; Hudleston, W. H., 1; Lang, W. D., 1; Woodward, H. B., 10.
Dosinia.—Oppenheim, P., 6.
Doubs (France).—Lamothe, R. de, 2; Van den Broeck, E., 11.
Down, Co. (Ireland).—Andrews, M. K., 1; Cole, G. A. J., 10; Seymour, H. J., 3.
Doveholes (Derby).—Dawkins, W. B., 1.
Drakenberg Mts. (S. Africa).—Schwarz, E. H. L., 2.
Dreissensia.—Pavlov, P. S., 2.
—— -beds, Rumania.—Sevastos, R., 1.
Drepanura.—Monke, H., 1.
Drift, Crewe.—Edwards, W., 1.
—— ice, transport by.—Prest, W. H., 1.
——, Iowa.—Macbride, T. H., 1.
——, Jurassic corals in N. German.—Oppenheim, P., 4.
——, Long Island (N.Y.).—Fuller, M. L., 3.
——, Prussia (E. & W.).—Ungern-Sternberg, E. von, 1.
——, Sylt, Amrum, & Heligoland. — Martin, J., 1.
——, Thames Valley.—Pocock, T. I., 1.
——. *See also* Lœss, Quaternary, &c.
Drillia.—Casey, T. L., 1.
Drummahair (Leitrim).—Cole, G. A. J., 6 & 7.
Druse-mineral, mica as a.—Sachs, A., 1.
Dryopithecus.—Abel, O., 2.
Dryptosaurus.—Lambe, L. M., 1.
Dublin, (Ireland).—Cole, G. A. J., 3 & 4; Egan, F. W., 1; Lamplugh, G. W., 6; Wright, J., 1 & 2; Wright, W. B., 1.
Ducktown (Tenn.).—Kemp, J. F., 3.
Dufrenoysite.—Pettard, W. F., 1; Solly, R. H., 2.
Dumfriesshire (Scotland).—Wright, J., 1.
Dumortierite.—Ford, W. E., 3.
Dundasite.—Pettard, W. F., 1.
Dundee (Forfar).—Durham, J., 1.
Dunderland (Norway).—Vogt, J. H. L., 2.
Dunes, Belgium.—Van Ertborn, O., 11.
——, Bermuda Is.—Verrill, A. E., 2 & 3.
——, Gascony.—Durègne, E., 1.
——, Karachi.—Oldham, R. D., 2.
——, Pas-de-Calais.—Gosselet, J., 5.
——, Sahara.—Hochreutiner, B. P. G., 1.
——, Schleswig.—Reinke, J., 1.
Dunstable Downs (Beds).—Hopkinson, J., 1.
Duppau (Bohemia).—Bauer, F., 1.
Durango (Mexico).—Rangel, M. F., 1; Witherbee, T. F., 1.
Durham.—Abbott, G, 1; Clough, C. T., 1; I'Anson, J. C., 1; Lebour, G. A., 1.
Dust, African origin of 'red rain.'—Thorpe, T. E., 1.
——, deposition of.—Russell, W. J., 1 & 2.
——, desert.—Flores, E., 1.
—— -fall, Canary Is.—Tacquin, A., 1; Portugal.—Choffat, P., 4; Victoria (Austral.).—Chapman, F., 2; falls recorded.—Chauveau, A. B., 1; Forel, F. A., 3.
——, New-South-Wales meteoric. — Liversidge, A., 1.
—— storms.—Marshall, P., 1.
——, volcanic.—Griffith, A. B., 1; *see also* Red rain, Volcanic, &c.
Düsseldorf (Rh.-Prussia).—Habets, A., 1; Hœrhanger, J., 1.
Dutch East Indies. *See* Celebes, &c.
Dutch Guiana (S. Am.).—Du Bois, G. C., 1.
Dwyka Conglomerates, Transvaal. — Sawyer, A. R., 3.
Dyctyaræa.—Osasco, E., 1.
Dykes, I. of Man.—Lomas, J., 1.
——, Mysore ultrabasic.—Wetherell, E. W., 3.
——, St. Minver coast.—Fox, H., 2.
Dyrosaurus.—Stefano, G. de, 2.

Ealing (Middlesex).—Brown, J. A., 1.
Earth, advent of life on.—Meunier, S., 17; Woodward, H, 12.
——, age of.—Joly, J., 4; Mackie, W., 5.
——, axis of. — Folie, F., 1 & 2; Lagrange, C., 1; Very, F. W., 1.
——, crust of.—Courty, G., 1; Fleischer, A., 1; Geikie, Sir A., 2; Milch, L., 1; Prinz, W., 2 & 4; Rothpletz, A., 1; Van den Broeck, E., 4.
——, evolution of.—Anon. 37.
——, figure of the.—Jeans, J. H., 1; Sollas, W. J., 1.
——, internal heat.—Romanes, G., 1.
——, interior, thermal waters &.—Hoffmann, J. F., 1.
—— movements. *See* Land, changes of level.
—— physics.—Milne, J., 1; Tacquin, A., 2.
——, planetary system &. — Borredon, G., 1–5.

Earth, structure of.—Reade, T. M., 2.
——, surface of.—Curtis, G. C., 2; Dryer, C. R., 1.
——, ——, temperature.—Hoffmann, J. F., 2.
——, volcanoes & figure of.—Lallemand, C., 1.
——. *See also* Gravity, &c.
Earthquake Conference, Strasburg.—Gerland, G., 3; Lancaster, A., 1.
—— Observatories, German.—Credner, H., 1; Gerland, G., 1 & 2; Weigand, B., 1.
—— records.—Lippmann, G., 1; Milne, J., 3.
——, Smyrna.—Yung, —, 1.
—— waves.—Harbœ, H. G., 1.
—— zones.—Miron, F., 1.
Earthquakes, America (Central).—Bœse, E., 1; Hay, Sir J. D., 1; Rockstroh, E., 1.
——, Assam.—Oldham, R. S., 1.
——, Austria.—Hœrnes, R., 7; Láska, W., 1; Mazelle, E., 1; Mojsisovics, E. von, 1 & 3; Schwab, P. F., 1.
——, Bavaria.—Reindl, J., 1.
——, Bermuda Is.—Verrill, A. E., 1 & 2.
——, Bohemia.—Mojsisovics, E. von, 3.
——, Caucasus, &c.—Andersson, F., 1; Mushketov, J., 1.
——, Ceram.—Rudolph, E., 1.
——, Colorado.—Lay, H. C., 1.
——, Cyprus.—Agamennone, G., 1.
——, distribution of.—Lallemand, C., 1; Milne, J., 1–6; Montessus de Ballore, F. de, 3; Tanakadate, A., 1.
——, Europe.—Sturm, F., 1.
——, Galicia.—Milne, J., 2.
——, Hungary.—Lajos, F., 1.
——, Italy.—Meli, R., 1; Sabatini, V., 1.
——, Japan.—Imamura, A., 1; Omori, F., 1–4; Rudolph, E., 2.
——, Kashmir.—Eckenstein, O., 1.
——, Kimberley (Cape Colony).—Sutton, J. R., 1.
——, Midlands.—Anon., 28.
——, New Zealand.—Farr, C. C., 2; Hogben, G., 1.
——, origin of.—Montessus de Ballore, F. de, 2–4.
——, rock-rigidity &.—Kusakabe, S., 1 & 2.
——, Sweden.—Kjellén, R., 1.
——, Turkey.—Hœrnes, R., 3.
——, volcanic eruptions & [W.I., &c.].—Anon., 2 & 3.
——, Württemberg.—Schmidt, A., 2.
——. *See also* Seismology.
Earths, rare.—Barker, G. F., 1; Pratt, J. H., 3.
East Bergholt (Suffolk).—Whitaker, W., 1.
Eastonia.—Dollfus, G. F., 6.
Ecca Beds.—Seward, A. C., 2.
Eccyliomphalus.—Weller, S., 2.
Echinanthus.—Martelli, A., 1.
Echinocorys.—Airaghi, C., 2; Arnaud, H., 1; Lambert, J., 3.
Echinogale.—Depéret, C., 3.
Echinoidea, Cretaceous.—Airaghi, C., 2; Arnaud, H., 1; Cotteau, G., 1; Fourtau, R., 1; Gauthier, V., 1 & 3; Lambert, J., 1–3; Loriol, P. de, 2; Pellat, E., 2; Savin, L., 1; Wollemann, A., 1.
——, Jurassic.—Gauthier, V., 2; Loriol, P. de, 2.
——, Tertiary.—Checchia-Rispoli, G., 1; Gauthier, V., 1; Kossmat, F., 1; Loriol, P. de, 2; Martelli, A., 1; Nelli, B., 1; Oppenheim, P., 6; Savin, L., 1.
Echinolampas.—Checchia-Rispoli, G., 1; Gauthier, V., 1; Martelli, A., 1.
Echinopedina.—Loriol, P. de, 2.
Eclogite.—Duell, E., 1; Hezner, L., 1.
Eden Valley (Cumberland, &c.).—Burns, D., 1; Kendall, P. F., 1.
Edentata, fossil & recent.—Grevé, C., 1.
——, Tertiary.—Scott, W. B., 1.
Edestus.—Karpinski, A., 1; Newton, E. T., 1.
Edinburgh (Scotland).—Goodchild, J. G., 10; Hepburn, D., 1; Traquair, R. H., 2.
Edmondia.—Weller, S., 2; Yakovlev, N., 4.
Education, geology &.—Ellis, J. E., 1; Lapworth, C., 2; Verri, A., 2; Watts, W. W., 2.
Eel, Scandinavian Chalk.—Woodward, A. S., 2.
Eggegebirge (Westphalia).—Stille, H., 2 & 3.
Eggenburg (Lr. Austria).—Fuchs, T., 1; Toula, F., 4.
EGLESTON, T. *See Obit.*, Kunz, G. F., 1.
Eglestonite.—Moses, A. J., 2.
Egypt.—Alford, C. J., 1; Andrews, C. W., 1–3 & 5; Ball, J., 1 & 2; Barron, T., 1; Beadnell, H. J. L., 1 & 2; Blanckenhorn, M., 2, 3, & 4; Cadell, H. M., 3; Dacqué, E., 1; Felix, J., 3; Fourtau, R., 3 & 4; Lankester, E. R., 1 & 2; Linck, G., 6; Lucas, A., 1; Neilson, J., 1; Oppenheim, P., 1; Pachundaki, D. E., 1; Stromer, E. von, 2, 4, & 5.
Eichenberg (Hesse).—Beyschlag, F., 1.
Eisach Valley (Tyrol).—Guenther, S., 1.
Eisenbach (Rh.-Bavaria).—Schalch, F., 1.
Ekaterinoslav Gov. (Russia).—Domherr, W., 1.
Ekbainacanthus.—Yakovlev, N., 2.
Elasmocœnia.—Felix, J., 2.
Elaterite.—Cumming, A. C., 1.
Elba, I. of.—Achiardi, G. d', 1 & 3.
Electricity, mineral vein-finding by.—Dickinson, J., 1.
Elephants, ancestry of.—Lydekker, R., 1.
——, pigmy, Cyprus.—Bate, D. M. A., 1.
Elephas.—Dawkins, W. B., 1; Flores, E., 2; Knight, W. C., 3; Portis, A., 1; Rutot, A., 5; Stingelin, T., 1.
Elgin (Scotland).—Boulenger, G. A., 1.

Elgin Sandstones.—Mackie, W., 3.
Elk, Quaternary.—Newton, E. T., 2.
Elkhorn (Mont.)—Weed, W. H., 7.
Ellipsoglandulina.—Silvestri, A., 1.
Elonichthys.—Eastman, C. R., 1.
Elotherium.—Bush, L. P., 1.
Emarese (Piedmont).—Brugnatelli, L., 3.
Embolophorus.—Case, E. C., 1 & 2.
Emerald.—Prinz, W., 1.
Emilia (Italy).—Corti, B., 1; Flores, E., 2; Nelli, B., 1; Sangiorgi, D., 1.
Ems (Nassau).—Fresenius, H., 1.
Enargite.—Stevanovič, S., 1.
Enchelurus.—Woodward, A. S., 8.
Enchodus. — Gorjanovič - Kramberger, K., 1; Leriche, M., 1; Woodward, A. S., 8.
Endianaulax &*Endiatænia.*—Chartron, C., 1.
Engadine (Switzerland). — Delebecque, A., 1.
Engineering, geology &. — Hawkshaw, J. C., 1.
England, Midlands.—Frech, F., 1.
—— (S.).—Bullen, R. A., 1.
—— (S.E.).—Jukes-Browne, A. J., 6; Monckton, H. W., 5; Rutot, A., 4.
——. *See also* Great Britain, Kent, &c.
Enköping (Svealand).—Sernander, R., 3.
Ennsthal (U. Styria).—Redlich, K. A., 1.
Ensis.—Dollfus, G. F., 6.
Entelodon.—Bush, L. P., 1.
Eocene, Belgium.—Van Ertborn, O., 1, 2, & 6.
——, Berne.—Gerber, E., 1.
——, Cameroons.—Oppenheim, P., 1.
——, Crete.—Cayeux, L., 3.
——, Sokotra.—Kossmat, F., 1.
——. *See also* Tertiary, &c.
Eochelone.—Dollo, L., 1.
Eoliths, Hampshire, &c.—Bullen, R. A., 1; Ireland.—Bennett, F. J., 1; Knowles, W. J., 1; London.—Bennett, F. J., 1.
Epiaster.—Gauthier, V., 1; Kossmat, F., 1; Lambert, J., 1.
Epidote.—Neuwirth, V., 1; Zambonini, F., 3.
Epprechtstein (Bavaria).—Weber, M., 1.
Epsomite.—Schaller, W. T., 1.
Equi Valley (Tuscany).—Elsden, J. V., 9.
Equisetum.—Knowlton, F. H., 1.
Equus.—Dawkins, W. B., 1; Munro, R., 1; Sernander, R., 1.
Erba (Lombardy).—Flores, E., 3.
Erinaceus.—Wortman, J. L., 1.
Eriphyla.—Burckhardt, C., 1.
Eriptycha.—Cossmann, M., 1.
Erisiphites.—Pampaloni, L., 1.
Erismacanthus.—Eastman, C. R., 1.
Erith (Kent).—Salter, A. E., 1.
Erosion, Austrian Tertiary.—Fuchs, T., 3.
——, coast.—Lakes, A., 12.
——, drift-ice.—Prest, W. H., 1.
——, river.—Ball, J., 1.
Erratic boulders.—Châtelet, C., 1.
Erratic deposits, Geneva.—Duparc, L., 3.
Erratics, Great Britain & Ireland.—Kendall, P. F., 2.
Eruptions. *See* Volcanic eruptions.
Eryops.—Case, E. C., 2.
Erzberg (Carinthia).—Baumgærtel, B., 1; Taffanel, J., 1.
Erzgebirge (Saxony).—Gæbert, C., 1.
Erzgebirge (Transylvania).—Gesell, A., 1; Pálfy, M. von, 1; Telegd, L. R. von, 1.
Escarpelle (Pas-de-Calais). — Deville, Ste.-Cl., —, 1.
Escharopora.—Weller, S., 2.
Esino (Lombardy).—Airaghi, C., 1.
Eskers, New York State.—Comstock, F. M., 3.
——, origin of.—Crosby, W. O., 1.
——, Svealand.—Sernander, R., 3.
Essequibo R. (Brit. Guiana).—Harrison, J. B., 1.
Essex.—Holmes, T. V., 1–3; Howe, J. A., 2; Salter, A. E., 1; Woodward, H. B., 13.
Essexite, Quebec.—Adams, F. D., 3.
Estuaries, S. Russian.—Sokolov, N., 1.
Étampes (Seine-et-Oise).—Grossouvre, A. de, 1; Meunier, S., 2.
Etaples (Pas-de-Calais).—Gosselet, J., 5.
Étaves (Aisne).—Rabelle, —, 1.
ETHERIDGE, R. *See Obit.* Anon., 6; Woodward, H. B., 8.
Etna (Sicily).—Kewitsch, G., 1.
Etoblattina.—Sellards, E. H., 1.
Étoile Massif (Provence).—Frech, F., 1.
Etrœungt-limestone (Rh.-Prussia). — Drevermann, F., 2.
Eubœa I. (Greece).—Deprat, J., 1–2.
Eucænus.—Melander, A. L., 1.
Euchondria.—Drevermann, F., 2.
Eucinepeltus.—Scott, W. B., 1.
Euclastes.—Lœrenthey, E., 2.
Eucyclus.—Chartron, C., 1.
Eudictyon.—Bistram, A. von, 1.
Euganean Hills (Venetia).—Squinabol, S., 2.
Euplectella.—Nelli, B., 1.
Euphotide erratics, Geneva.—Duparc, L., 3.
Eure-et-Loir (France).—Dollfus, G. F.
Europe.—Frech, F., 2; Stolley, E., 1; Toula, F., 3.
——, glaciation & plants.—Anon., 35.
European & Persian fossil-faunas.—Douvillé, H., 2.
Eurychilina.—Weller, S., 2.
Eurydesma.—Bœhm, G., 1.
Euspatangus.—Gauthier, V., 1.
Euthriofusus.—Cossmann, M., 2.
Evansite.—Pettard, W. F., 1; Vernadski, V. S., 3.
Evergem (Flanders).—Brouwer, M. de, 1.
Evolution, Brachiopoda.—Cumings, E. R., 1.
——, climatic.—Manson, M., 2; Wieland, G. B., 2.

Evolution, earth &.—Anon., 37.
——, extinction &.—Andrews, C. W., 2.
——, geology &.—Hutton, F. W., 1; Meunier, S., 10.
——, palæontology &.—Lydekker, R., 2 & 3; Meunier, S., 17; Woodward, H., 12.
Exelissa.—Chartron, C., 1.
Exhibition, Düsseldorf, 1902. — Hœrhanger, J., 1; Paris, 1900.—Schafarzik, F., 7; Szontagh, T. von, 1; *see also* Building-stones.
Exogyra.—Antula, J., 1; Burckhardt, C., 1; Paulcke, W., 1; Shattuck, G. B., 1.
'Exotic blocks,' Hundés.—Krafft, A. von, 1.
Extinction, evolution &.—Andrews, C. W., 2.
EXTON, HUGH. *See Obit.*, Anon., 7.
Eyre, Lake (S. Austral.).—Etheridge, R., Fil., 2.

Facetted pebbles. *See* Pebbles, Windworn, &c.
Fairmont (W. Va.).—Haas, F., 1.
Falconida.—Regàlia, E., 1.
Fallotia.—Douvillé, H., 3.
Falmouth (Cornwall).—Hill, J. B., 1.
Faringdon (Berks).—Lamplugh, G. W., 1.
Fascinella.—Fœrster, B., 5.
Fassa Valley, (Tyrol).—Fabian, K., 1; Gordon, M. M. O., 1.
Fatrakriván Mts. (Hungary).—Uhlig, V., 2.
Faujasina.—Millett, F. W., 1.
Faults, Harz.—Hecker, O., 3.
——, Liége.—Fourmarier, P., 3.
——, origin of.—Montessus de Ballore, F. de, 2.
——, Poitiers.—Welsch, J., 1.
——, Ridgeway.—Darwin, H., 1.
——, Tainton Downs.—Walford, E. A., 1.
Favosites.—Weller, S., 2.
Fayûm (Egypt).—Andrews, C. W., 1-3 & 5; Lankester, E. R., 1 & 2; Neilson, J., 1; Stromer, E. von, 2, 4 & 5.
Feildenia.—Mœller, H., 1.
Felis.—Ameghino, F., 2.
Felsite, Dartmoor.—Worth, R. H., 1.
Felspars.—Baumhauer, H., 4; Fedorov, E., 2; Fels, G., 1; Ries, H., 1; Spurr, J. H., 2; Tertsch, H., 1; Winchell, N. H., 1.
Fenestella.—Chapman, F., 1.
Ferdinandea I. (Mediterranean). — Meunier, S., 5.
Fernando de Noronha (S. Atlantic).—Branner, J. C., 4.
Ferru, Mte. (Sardinia). — Dannenberg, A., 1.
Fichtelgebirge (Bavaria).—Weber, M., 1.
Fiji Is. (Pacific).—Bonney, T. G., 10; Sherlock, R. L., 1; Skeats, E. W., 1.
FILHOL, H. *See* Pettit, A., 1.
Finland.—Borgstrœm, L. H., 1; Rosberg, J. E., 1.
Finne Mts. (Thuringia).—Henkel, L., 2; Schuetze, E., 1.
Fireclay, erratic stones in Horbury.—Sutcliffe, R., 1.
Fishes, Carboniferous.—Eastman, C. R., 1; Newton, E. T., 1; Traquair, R. H., 2; Wellburn, E. D., 1; Woodward, A. S., 5, 6, & 11.
——, coal of fossil.—Sollas, W. J., 3.
——, Cretaceous.—Branner, J. C., 1; Leriche, M., 1; Woodward, A. S., 2 & 8.
——, Devonian. — Claypole, E. W., 1; Dollo, L., 4; Fox, H., 1; Gosselet, J., 6; Sollas, W. J., 3; Traquair, R., H., 1 & 3.
——, Jurassic.—Sauvage, H. E., 1 & 2.
——, Permo-Carboniferous.—Karpinski, A., 1; Simoëns, G., 2; Van den Broeck, E., 2; Van de Wiele, C., 1; Woodward, A. S., 3 & 10.
——, Silurian. — Gorjanovič - Kramberger, K., 1.
——, subfossil.—Eastman, C. R., 2.
——, Tertiary.—Coomáraswámy, A. K., 3; Gorjanovič-Kramberger, K., 1; Kæch, M., 1; Koch, A., 4; Lucas, F. A., 5; Nelli, B., 1; Sangiorgi, D., 1.
——, Triassic.—Deecke, W., 2; Eaton, G. F., 1; Frech, F., 1; Yakovlev, N., 2.
Fissodus.—Eastman, C. R., 1.
Fjords, Norway.—Monckton, H. W., 2 & 4.
Flabellina.—Schick, T., 1.
Flabellinella.—Liebus, A., 2.
Flabellum.—Oppenheim, P., 6.
Fläming (Brandenburg).—Lunstow, O. von, 1.
Flanders (Belgium).—Andrimont, R. d'; 1; Brouwer, M. de, 1; Stainier, X., 4; Van Ertborn, O., 1, 4, 6, 8, & 11.
Flathead Lake (Mont.).—Elrod, M. J., 1.
Fleims Valley (Tyrol).—Fabian, K., 1; Ippen, J. A., 4.
Flint, Kanawha black.—White, I. C., 1.
——, Norfolk.—Elsden, J. V., 5.
——, United States.—Ries, H., 1.
Florence (Tuscany).—Trabucco, G., 1.
Florida (U.S.A.). — Dall, W. H., 3; Vaughan, T. W., 1.
Fluid-inclusions.—Hunt, A. R., 6.
Fluorspar.—Hulyák, V., 1; Lenher, V., 1; Pratt, J. H., 7; Weber, M., 1; Zimmermann, R., 1.
Flysch, Biarritz.—Mayer-Eymar, C., 1.
——, Carpathian.—Zuber, R., 1.
——, Dalmatia.—Kerner, F., 4.
——, Montenegro.—Martelli, A., 2.
——, Salzburg.—Lorenz, J. von, 2.
——, Switzerland.—Kæch, M., 1.
Foggia Valley (Liguria).—Ristori, G., 2.
Foix (Ariège).—Carez, L., 7.

Font-de-Gaume (Dordogne).—Martel, E, A., 4.
Footprints, Triassic.—Beasley, H. C., 1 & 2; Hornstein, F., 1.
Foraminifera, Cambrian & Silurian.—Weller, S., 2.
——, Carboniferous.—Barrois, C., 3.
——, classification of.—Kemna, A., 1.
——, Cretaceous.—Douvillé, H., 3, 4, & 9; Holmes, W. M., 1; Liebus, A., 2.
——, Jurassic.—Deecke, W., 1; Munier-Chalmas, —, 1 & 2; Schick, T., 1.
——, Quaternary.—Reade, T. M., 1; Sherlock, R. L., 1; Wright, J., 1–3.
——, Tertiary.—Andreæ, A., 3; Douvillé, H., 1 & 3; Fornasini, C., 1 & 2; Gortani, M., 3; Haug, É., 2; Herrmann, A., 1; Mariani, M., 1; Martelli, A., 1; Millett, F. W., 1; Oppenheim, P., 6; Prever, P., 1; Schlumberger, C., 1 & 2; Silvestri, A., 1.
Foraminiferal ooze, Iowa Coal-Measures.—Udden, J. A., 1.
Forests, submerged.—Reade, T. M., 2.
Formations, classification of Tennessee.—Safford, J. M., 1.
Forno Avoltri. *See* Avoltri.
Fossarulus.—Pavlov, P. S., 2.
Fossiliferous Silurian, Ireland (N.E.).—Clark, R., 1.
Fossils, photography of.—Ingen, G. van, 1.
——, sectionizing.—Sollas, W. J., 2.
FOSTER, Sir C. LE N.—Anon., 14.
Foxdale (I. of Man).—Bonney, T. G., 1; Lomas, J., 1.
Fox Hills (Surrey).—Monckton, H. W., 3.
Fram' Arctic Expedition.—Anon., 29; Schei, P., 1; Sverdrup, O., 1.
Framont (Alsace-Lorraine).—Schweitzer, J., 1.
France.—Barré, O., 1; Depéret, C., 2; Dobers, —, 1; Frech, F., 1.
——, Central massif.—Grossouvre, A. de, 5.
——. *See also* Haute-Garonne, Mineral Waters, &c.
Franche Comté (France).—Piroutet, M., 2.
Franceville (Colo).—Preston, H. L., 1.
Franconia (Bavaria).—Henkel, L., 3.
Frank (Alberta Terr.).—Brewer, W. M., 2; Lakes, A., 11.
Frankenberg (Cassel).—Denckmann, A., 2; Stelle, H., 4.
Frankenstein (Silesia).—Illner, —, 1,
Frankfort-on-Main (Germany), Senckenberg Natural History Museum.—Kinkelin, F., 2.
Frayssinet-le-Gélat (Lot).—Douvillé, H., 8; Gauthier, V., 3; Mouret, G., 2.
Fredericton (New Brunswick).—Chalmers, R., 1.
Freiberg (Moravia).—Remeš, M., 2.
Freiburg (Baden).—Keidel, H., 1.
Fresnoy (Aisne).—Rabelle, —, 1.
Fribourg (Switzerland).—Sarasin, C., 2.
Frisian Is. (Schleswig-Holstein).—Martin, J., 1.
Friuli district (Umbria).—Bortolotti, C., 1.
Frondicularia.—Liebus, A., 1; Schick, T., 1.
Frost, soils &.—Roberts, M., 1.
Fruits, seeds, &c. *See* Plants.
Fruskagora Mts. (Hungary).—Koch, A., 5.
Fuchsite.—Miers, H. A., 3.
Fucoids, Tertiary.—Lorenz, J. von, 2.
Fulgur.—Smith, B., 1.
Fulgurites, Nürnberg.—Spiess, E., 1.
Fullers' Earth, Mysore.—Primrose, A., 1.
——, United States.—Vaughan, T.W., 1.
Fumaroles, West Indies.—Sapper, K., 10.
Fungi, Carboniferous.—Renault, B., 2.
Furesö, Lake (Denmark).—Wesenberg-Lund, C., 1.
Furfooz (Namur).—Van den Broeck, E., 2.
Furtwangen (Baden).—Schalch, F., 3.
Furva Valley (Lombardy).—Hammer, W., 1.
Fusulina-limestone.—Fliegel, G., 1.; Gortani, M., 1–3.
Fusus.—Shattuck, G. B., 1.

Gabbro, Caucasus.—Lœwinson-Lessing, F., 1.
——, definition of.—Osann, A., 5.
——, Geneva erratics.—Duparc, L., 3.
——, Sudan.—Linck, G., 6.
——, Tasmania.—Twelvetrees, W. H., 12.
——, Tellina Valley.—Hecker, O., 2.
——, White Sea.—Fedorov, E., 1.
Gadolinite.—Davis, B. F., 1.
Gaines (Pa.).—Fuller, M. L., 1.
Galago.—Wortman, J. L., 1.
Galena, Sardinia.—Rimatori, C., 1.
Galgenberg (Württ.).—Engel, —, 1.
Galicia (Austria).—Friedberg, G., 1; Galloway, W., 1; Milne, J., 2; Rzehak, A., 1; Schrœter, A., 1; Szajnocha, W., 1; Volz, W., 1; Zuber, R., 1.
Galloway's Soufrière, Montserrat.—Sapper, K., 6.
Galls, fossil plant.—Trotter, A., 1.
Ganbirretia.—Gauthier, V., 2.
Gard (France).—Pellat, E., 1.
Gargano, Mte. (Venetia).—Checchia-Rispoli, G., 1.
Garhwal (N.W. India).—Stephens, F. J., 1 & 2.
Garnet.—Fromme, J., 1; Kunz, G. F., 3; Zambonini, F., 2.
Garnetiferous sand, Olchon I.—Bagashov, I., 1.
——, volcanic rocks, Borrowdale.—Walker, E. E., 1.
Gas (natural), Indiana.—Leach, J. C., 1; Newsom. J. F., 1; Kansas.—Crane, W. R., 1; Yates, J. A., 1; Ohio, &c.—

Bownocker, J., 1 & 2; Oliphant, F. H., 2; Sussex. — Dixon, H. B., 1; Woodward, H. B., 11.
Gascony (France). — Arnaud, H., 1; Durègne, E., 1.
Gases in coal.—Bedson, P. P., 1; Broockmann, —, 1.
——, mineral waters with.—Moissan, H., 1; Moureu, C., 1.
——, Mt. Pelé fumaroles.—Gautier, A., 1.
Gaspereau Valley (N.S.).—Haycock, E., 1.
Gasteropoda, Cambrian (& phylogenic stage of).—Sardeson, F. W., 1.
——, Cretaceous. — Cossmann, M., 1; Dacqué, E., 1; Etheridge, R., Fil., 2; Franchis, F. de, 1; Longhi, P., 1; Moore, J. E. S., 1; Shattuck, G. B., 1; Stanton, T. W., 2; Weller, S., 1; Wollemann, A., 1.
——, Devonian.—Kayser, E., 1; Walther, K., 1; Weller, S., 2.
——, Jurassic.—Allen, H. A., 1; Bistram, A. von, 1; Chartron, C., 1; Moore, J. E. S., 1.
——, Quaternary. — Dennant, J., 3; Johnson, J. P., 1; Pilsbry, H. A., 1; Springer, A., 1; Stearns, R. E. C., 1; Wuest, E.. 3.
——, Silurian.—Weller, S., 2.
——, Tertiary.—Casey, T. L., 1; Cossmann, M., 2; Dall, W. H., 3; Dennant, J., 3; Fœrster, B., 5; Fuchs, T., 5; Hœrnes, R., 1; Hudleston, W. H., 1; Nelli, B., 1; Pavlov, P. S., 2; Pritchard, G. B., 2; Smith, B., 1; Vincent, E., 1.
——, Triassic.—Frech, F., 1.
Gastrioceras.—Smith, J. P., 1.
Gastrochæna.—Dollfus, G. F., 6.
Gattico (Piedmont).—Patrini, P., 1.
GAUDRY, J. A.—Woodward, H., 3.
Gaudryceras.—Yabe, H., 1.
Gaudryina.—Liebus, A., 2.
Gault, Merstham.—Holmes, W. M., 1.
——, Norfolk.—Elsden, J. V., 5.
——, Rumania.—Sevastos, R., 2.
Gavarnie (Hautes-Pyrénées). — Stuart-Menteath, P. W., 2.
Gavialis.—Koch, A., 4.
Gayton (Northants).—Thompson, B., 1.
Gbellan (Hungary).—Liebus, A., 2.
Gefell (Thuringia).—Zimmermann, E., 1.
Geierswalde (E. Prussia).—Michael, R., 3.
Geite.—Milne, J., 4.
Gellivara (Norrbotten).—Launay, L. de, 4.
Gems. *See* Precious stones.
Gemünden (Rh.-Pruss.).—Traquair, R. H., 1 & 3.
Geneva (Switzerl.).—Œberhardt, B., 1; Duparc, L., 3.
Genoa (Liguria).—Figari, L., 1.
Geodes, vein with quartz.—Squinabol, S., 2.
Geographical names of physical features.—Issel, A., 1.
Geography, geology &. — Holdich, Sir T. H., 1.
——, physical, &c., 1901, &c.—Morley, H. F., &c., 3; *see also* Physical.
'Geologica, bibliographia.' — Mourlon, M., 3; Van den Broeck, E., 14.
Geological chronometer.—Bulman, G. W., 1.
—— Congress. *See* Congress.
—— literature, 1900–1902.—Toula, F., 3; 1901, &c.—Morley, H. F., 2.
—— ——, Alsace-Lorraine, 1580–87.—Schumacher, E., 1; 1888–89.—Van Werveke, L., 6.
—— ——, Canada, 1901.—Ami, H. M., 5.
—— ——, England (N.), 1900.—Sheppard, T., 4.
—— ——, Italy, 1901.—Bonarelli, G., 1.
—— ——, Switzerland, 1901.—Schardt, H., 6.
—— ——, Württemberg & Hohenzollern.—Schuetze, E., 2.
—— map before 1850, Sweden.—Lœnborg, S., 1.
—— models, Apuan Alps.—Sacco, F., 3.
—— nomenclature, Nova Scotian. — Fletcher, H., 1; N. American.—Weeks, F. B., 1.
—— papers, Devonshire Association, 1862–1902.—Hamling, J. G., 1.
—— photographs.—Watts, W. W., 3; *see also* Photography.
—— Society, medals, &c.—Lapworth, C., 1 & 2; Museum.—Blake, J. F., 1.
—— ——, America.—Fairchild, H. Le R., 1; France.—Carez, L., 2; Vidal, L. M., 1; German. — Beyschlag, F., 1; Denckmann, A., 2; Stille, H., 3 & 4; Hungary.—Koch, A., 1; Schafarzik, F., 2; Italy.—Capellini, G., 1; Clerici, E., 1; Pellati, N., 1.
—— Survey, Algeria.—Ficheur, E., 1.
—— ——, Alsace-Lorraine. — Benecke, E. W., 3 & 6.
—— ——, Australia (W.).—Maitland, A. G., 2.
—— ——, Austria.—Tietze, E., 1–4; Stache, G., 1.
—— ——, Belgium.— Mourlon, M., 1; Van den Broeck, E., 5.
—— ——, Bohemia.— Počta, P., 1.
—— ——, Canada.—Bell, R., 1; Dawson, G. M., 1; laboratory.—Hoffmann, G. C., 2.
—— ——, Cape Colony.—Corstorphine, G. S., 1; Rogers, A. W., 1; Schwarz, E. H. L., 1 & 2.
—— ——, Egypt.—Barron, T., 1.
—— ——, England & Wales. — Allen, H. A., 1; Dakyns, J. R., 3; Fox-Strangways, C., 1; Jentzsch, A., 1; Jukes-Browne, A. J., 6; Teall, J. J. H., 3 & 4; Reid, C., 2–7; Strahan, A., 1–6.
—— ——, France.—Michel-Lévy, A., 1.

Geological Survey, Hesse. — Lepsius, R., 1.
—— ——, Hungary. — Bœckh, J., 1; laboratory report, 1900.—Kalecsinsky, A. von, 1.
—— ——, India.—Anon., 16; Holland, T. H., 3.
—— ——, Indiana.—Blatchley, W. S., 1, 2, 3; Iowa.—Calven, S., 1.
—— ——, Ireland.—Egan, F. W., 1; Jentzsch, A., 3; Lamplugh, G. W., 6; Teall, J. J. H., 3 & 4.
—— ——, Japan.—Inouye, K., 1; Kanehara, N., 1; Kochibe, T., 1; Ogawa, T., 1; Senkino, S., 1.
—— ——, Minnesota.—Winchell, N. H., 2.
—— ——, Mysore.—Smeeth, W. F., 1.
—— ——, Nebraska.—Barbour, E. H., 1.
—— ——, Prussia & Thuringia.—Beyschlag, F., 2.
—— ——, Queensland.—Dixon, R., 1.
—— ——, Russia.—Derjavin, A., 1.
—— ——, Saxony.—Wagner, P., 1.
—— ——, Scotland.—Jentzsch, A., 3; Teall, J. J. H., 3 & 4.
—— ——, United States of America.—Anon., 27; Walcott, C. D., 1, 2, & 6.
—— surveying.—Hobbs, W. H., 5.
—— terms.—Bonney, T. G., 5.
—— text-books. — Barré, O., 1; Charpentier, H., 1; Frech, F., 1 & 2; Geikie, Sir A., 2; Lapparent, A. de, 10; Mercalli, G., 1; Weinschenk, E., 1.
—— time, life-distribution in.—Woodward, H., 12.
—— topography, influence of gypsum & salt on.—Ochsenius, C., 4.
'Geologisches Centralblatt.'—Coomáraswámy, A. K., 1.
Geologists' Association, N. Staffordshire excursion.—Elsden, J. V., 8.
Geology, agricultural. — Marr, J. E., 1; Woodward, H. B., 1; *see also* Soils, &c.
——, Alpine.—Zuercher, P., 1.
——, American (N.).—Walcott, C. D., 5; Weeks, F. B., 2.
——, applied. — Angelis d'Ossat, G. de, 6; Charpentier, H., 1; Issel, A., 5; Meli, R., 2; Watts, W. W., 2.
——, British Association, 1903.—Monckton, H. W., 1.
——, chemistry &.—Gans, R., 1.
——, education &. — Ellis, J. E., 1; Lapworth, C., 2; Verri, A., 2; Watts, W. W., 2.
——, engineering &.—Hawkshaw, J. C., 1.
——, evolution &.—Hutton, F. W., 1; Wiik, F. J., 1.
——, experimental.—Avebury, Lord, 1; Guébhard, A., 1; Reade, T. M., 2.
——, geography &.—Holdich, Sir T. H., 1.
——, Germany.—Lepsius, R., 2.
Geology, gravity &.—Lapparent, A. de., 9.
——, International bibliography of. — Simoëns, G., 3; Van den Broeck, E., 3.
——, New Zealand.—Hamilton, A., 1.
——, Nova Scotia.—Ells, R. W., 1.
——, photography &. — Ingen, G. van, 1; Watts, W. W., 3; Woodward, H., 8.
——, plants &.—Smith, W. G., 1.
——, Rhenish Schiefergebirge, 1581–1900.—Kaiser, E., 1.
——, R. School of Engineers, Rome.—Meli, R., 2.
——, Saxony, 1494.—Wagner, P., 1.
——, Wellington College.—Blundell, G. E., 1.
Geophysical phenomena.—Milne, J., 1; Tacquin, A., 2.
—— station, Quenast.—Lagrange, E., 1.
Georgetown (Colo.).—Crosby, W. O., 2.
Georgia (U.S.A.). — Eckel, E. C., 1; McCallie, S. W., 2; Vaughan, T. W., 1.
Geothermal gradient, Michigan.—Lane, A. C., 2.
Gephyrostegus.—Jækel, O., 3.
Geraphrynus.—Melander, A. L., 1.
Gerihorn (Berne).—Douvillé, H., 10.
German African Colonies.—Macco, A., 1.
Germany. — Frech, F., 1 & 2; Gerland, G., 2.
—— (E.).—Lepsius, R., 2.
—— (N.).—Jentzsch, A., 1 & 2; Kœnen, A. von, 1; Lamplugh, G. W., 2; Lepsius, R., 2; Ochsenius, C., 1.
——. *See also* Hesse, &c.
Gerrard's Cross (Bucks).—Howe, J. A., 1.
Gervillia.—Bistram, A. von, 1.
Gervilliopsis.—Shattuck, G. B., 1.
Gesso Valley (Piedmont).—Roccati, A., 1.
Gewitsch (Moravia).—Tietze, E., 1.
Gibbsite.—Pettard, W. F., 1.
Gibraltar.—Acland, H. D., 1.
Gien (Loiret).—Grossouvre, A. de, 4.
Giessen (Hesse).—Parkinson, H., 1.
Gilgenberg (E. Prussia).—Michael, R., 3.
Ginkgo.—Knowlton, F. H., 1; Mœller, H., 1.
Gippsland (Victoria).—Dennant, J., 2.
Girvan (Ayrshire).—Reed, F. R. C., 5.
Gismondite.—Thugutt, St. I., 1.
Giza, Pyramids of (Egypt).—Beadnell, H. J. L., 1.
Glacial action, Mission Valley (Mont.).—Elrod, M. J., 1.
—— conglomerates, Victoria. — Hart, T. S., 1.
—— deposits, Alsace-Lorraine. — Van Werveke, L., 13 & 14.
—— ——, Brandenburg.—Linstow, O. von, 1.
—— ——, California.—Hershey, O. H., 5.

Glacial deposits, Cheshire.—Edwards, W., 1.
—— ——, classification of N. European.—Stolley, E., 1.
—— ——, Jura.—Bourgeat, —, 1–3.
—— ——, Lancashire.—Reade, T. M., 1.
—— ——, Nova Scotia.—Haycock, E., 1.
—— ——, Permo-Carboniferous, Victoria (Austral.).—Kitson, A. E., 2.
—— Drift, Co. Dublin.—Lamplugh, G. W., 6.
—— periods.—Bœttcher, —, 1; Chamberlin, T. C., 2; Longe, F. D., 1; plants &.—Anon., 35.
—— striæ, Hanover.—Menzel, H., 2; simulated.—Van den Broeck, E., 1.
Glaciated boulders, Permo-Carboniferous, Victoria.—Thiele, E. O., 1.
—— pebbles, Pas-de-Calais. — Gosselet, J., 5; *see also* Pebbles.
Glaciation, Alsace-Lorraine. — Deecke, W., 3.
——, Baden.—Steinmann, G., 2.
——, Carpathians.—Martonne, E. de, 1.
——, Cheviot Hills.—Kendall, P. F., 3.
——, Colorado.—Lay, H. C., 1.
——, Condroz massif.—Simoëns, G., 1.
——, Corsica.—Castelnau, P., 1.
——, Dauphiné.—Martin, D., 1.
——, Dublin Co.—Wright, W. B., 1.
——, Europe.—Frech, F., 2.
——, Hebrides.—Knight, G. A. F., 1.
——, Himalayas.—Freshfield, D. W., 1.
——, Jordan Valley.—Libbey, W., 1.
——, Klamath Mts. — Hershey, O. H., 1–5.
——, Magdeburg.—Wahnschaffe, F., 1.
——, Massachusetts.—Taylor, F. B., 1.
——, North Haven I. (Me.).—Willis, B., 2.
——, Norway.—Monckton, H. W., 3; *see also* Scandinavia.
——, Orange-River Colony. — Barrett-Hamilton, G. E. H., 1.
——, Salt-Range Permian.—Koken, E., 4.
——, Saxony.—Riedel, O., 1.
——, Scandinavia. — Ussing, N. V., 1; *see also* Norway, &c.
——, Skye, I. of.—Harker, A., 1.
——, Styria.—Dreger, J., 1.
——, Tasmania.—Gregory, J. W., 1.
——, Tyrol.—Guenther, S., 1; Hess, H., 2.
——, Valais.—Tornquist, A., 2.
——, Vosge Mts.—Van Werveke, L., 13.
——, Wyoming.—Salisbury, R. D., 1.
Glacier-lakes, America (N.). — Upham, W., 3 & 4.
—— ——, Yorkshire.—Clark, J. E., 1.
——-movement.—Crammer, H., 2.
Glaciers, Antarctic.—Arçtowski, H., 2.
——, Colorado.—Fenneman, N. M., 2.
——, Dauphiné & Savoy.—Belloc, E., 1; Girardin, P., 1.
——, International Commission. — Finsterwalder, S., 1; Forel, F. A., 4; Kilian, W., 1; Rabot, C., 1 & 2.
Glaciers, Mont-Blanc (1780).—Forel, F. A., 1.
——, Monte Rosa.—Dainelli, G., 2.
——, Norway.—Rekstad, J., 1.
——, Simplon massif.—Schardt, H., 4.
——, Spitsbergen.—Baun, A., 1.
——, United States.—Elrod, M. J., 1; Reid, H. F., 1.
——, variation of. — Engell, M. C., 1; Finsterwalder, S., 1; Forel, F. A., 1 & 4; Girardin, P., 1; Kilian, W., 1 Rabot, C., 1 & 2; Reid, H. F., 1.
——, Vosges.—Meunier, S., 9.
Glaciology, 1901-1902.—Rabot, C., 1 & 2.
Glamorganshire. — Jordan, H. K., 1; Small, E. W., 1; Strahan, A., 2 & 5.
Glandina.—Fœrster, B., 5.
Glandulina.—Silvestri, A., 1.
Glarus (Switzerland). — Frech, F., 1; Penck, A., 1.
Glaserite.—Van't Hoff, J. H., 3.
Glaslyn (N. Wales).—Dakyns, J. R., 1.
Glassy igneous rocks, devitrification in.—Bonney, T. G., 12.
Glauber's salt deposits, Caspian Sea.—Ochsenius, C., 5.
——, Liguria.—Franchi, S., 1.
Glaucophanic rocks, Alps (W.).—Rosati, A., 1.
Glencoe (Argyle).—Kynaston, H., 1.
Glenrowan (Victoria). — Kitson, A. E., 2.
Globablastus.—Hambach, G., 1.
Gloggnitz (Lr. Austria).—Keyserling, H. von, 2.
Glossopteris.—Seward, A. C., 2.
Gloucestershire.—Anon., 18; Buckman, S. S., 4; Moore, H. C., 1; Reade, T. M., 3; Richardson, L., 1, 4, & 5; Strahan, A., 1; Tomes, R. F., 1; Wethered, E. B., 1.
Glycimeris.—Dollfus, G. F., 6; Etheridge, R., Fil., 2.
Glyn Ceiriog (Denbighshire). — Moore, C. C., 1.
Glyphæa.—Weller, S., 1.
Glyphioceras.—Foord, A. H., 1; Smith, J. P., 1.
Glyptias.—Walcott, C. D., 3.
Gnangara, Lake (W. Austral.). — Maitland, A. G., 1.
Gneiss, Alpes-Maritimes. — Roccati, A., 1.
——, Alsace.—Bruhns, W., 2.
——, Austria (Lr.). — Keyserling, H. von, 2.
——, Bavaria.—Duell, E., 1.
——, Bohemia.—Hinterlechner, K., 2.
——, British East Africa.—Prior, G. T. 2.
——, Canada.—Osann, A., 1.
——, intrusive.—Cole, G. A. J., 7.
——, Maryland.—Clark, W. B., 4.
——, Mysore.—Jayaram, B., 1; Sambasiva-Iyer, V. S., 1; Slater, H. K., 1; Smeeth, W. F., 1; Wetherell, E. W., 1.

Gneiss, pebbles in Erzgebirge.—Gæbert, C., 1.
——, plant-remains in.—Dal Piaz, G., 1 & 2.
——, Rum, I. of.—Harker, A., 2.
——, Sudan.—Lacoin, —, 1.
——, Victoria (Austral.). — Jenkins, H. C., 1.
Goat, Quaternary.—Koch, A., 3.
Gœthite.—Cesàro, G., 1.
Gold, Alaska.—Brooks, A. H., 3; Collier, A. J., 1.
——, Arizona.—Reagan, A. B., 3.
——, Australia (S.).—Brown, H. Y. L., 1 & 2; (W.).—Campbell, W. D., 1; King, H. S., 1; Krusch, P., 1; Maitland, A. G., 2.
——, British Columbia.—Gwillim, J. C., 1; Prior, E. G., 1 & 2.
——, British Guiana. — Hargreaves, T. S., 1.
——, Bukhara.—Levat, E. D., 1 & 2.
——, California.—Day, D. T., 1; Roberts, G. E., 1; Yunge, G., 1.
——, Canada.—Ingall, E. D., 2.
——, Colorado.—Day, D. T., 1; Lakes, A., 1; Ransome, F. L., 1; Rickard, T. A., 1; Roberts, G. E., 1; Welles, A. M., 1.
——, Egypt.—Alford, C. J., 1.
——, fluorspar &.—Lenher, V., 1.
——, Georgia.—Eckel, E. C., 1.
——, German E. Africa.—Macco, A., 1.
——, Gold Coast.—Bowler, L. P., 1; Sawyer, A. R., 6.
——, India.—Grundy, J., 1; Holland, T. H., 3; Stonier, G. A., 1 & 2.
——, Indiana.—Blatchley, W. S., 3.
——, Ivory Coast.—Armas, M., 1.
—— in Kansas 'shales.'—Lovewell, J. T., 1.
——, Klondyke. — Dawson, G. M., 1; Miers, H. A., 4.
——, Matabeleland—Carey, G. R., 1.
——, Mexico.—Aguilera, J. G., 1; Blake, W. P., 2; Lakes, A., 7.
——, Montana.—Weed, W. H., 7.
——, Natal.—Gray, C. W., 1.
——, Newfoundland.—Howley, J. P., 1.
——, New South Wales.—Pittman, E. F., 1.
——, New Zealand. — McKay, A., 1; Morgan, P. C., 1.
——, Nova Scotia.—Faribault, E. R., 1; Gilpin, E., Jun., 1 & 2.
——, Oregon.—Lindgren, W., 1.
——, Philippine Is.—Nichols, J. C., 1.
——, Queensland. — Boll, L. C., 1, 2, & 3; Cameron, W. E., 2 & 3; Dunstan, B., 2; Jackson, C. F. V., 3.
——, Siberia. — Bordeaux, A., 1; Gerasemov, A. P., 1; Ijitzki, N., 1 & 2; Jaczewski, L., 1; Meister, A., 1 & 2; Obruchev, V., 1.
——, Styria.—Redlich, K. A., 1.
——, Sumatra, &c.—Truscott, S. J., 1.
——, Tasmania.—Twelvetrees, W. H., 3, 4, & 7–10.
Gold, Transvaal.—Black, W. G., 1; Hammond, J. H., 1; Hatch, F. H., 1; Sawyer, A. R., 1.
——, Transylvania.—Vernadski, V. S., 3.
——, Trinidad.—Guppy, R. J. L., 1.
——, United States production.—Day, D. T., 1; Robarts, G. E., 1.
——, Victoria (Austral.).—Cundy, W. H., 1; Jenkins, H. C., 1.
——, Washington.—Spurr, J. E., 1.
——, Woodlark I.—Pinder, C. R., 1.
Gold Coast (W. Africa).—Bowler, L. P., 1; Sawyer, A. R., 6.
Goldberg (Silesia).—Scupin, H., 1.
Gommern (Magdeburg).—Wahnschaffe, F., 1.
Gondwana land-fauna, Brazilian. — Woodward, A. S., 7.
—— Series, India, &c.—Seward, A. C., 4.
Goniatites.—Drevermann, F., 3; Smith, J. P., 1.
Goniobasis.—Stanton, T. W., 2.
Goniocidaris.—Loriol, P. de, 2.
Gonioloboceras.—Smith, J. P., 1.
Goniophora.—Maurer, F., 1; Walther, K., 1.
Gorbelka R. (Siberia).—Ijitzki, N., 1.
Goritz (Austria).—Hœrnes, R., 2.
Gosau (U. Austria).—Felix, J., 2.
—— -sandstone, Grätz.—Hilber, V., 1.
Goshen Hole (Wy.).—Adams, G. I., 1.
Gosseletia.—Maurer, F., 1.
Gotland (Sweden).—Kjellén, R., 2; Moberg, J. C., 2; Munthe, H., 1 & 2; Post, L. von, 1; Winkler, C., 1.
Gotland, I. of (Baltic).—Wiman, C., 2.
GRÆFF, F. F. *See Obit.*, Osann, A., 2.
Graham Shoal. *See* Ferdinandea I.
Grammysia.—Maurer, F., 1; Walther, 1.
Granatocrinus.—Hambach, G., 1.
Grand-Gulf Formation, Mississippi, &c. —Dall, W. H., 2; Hilgard, E. W., 1; Smith, E. A., 2.
Grand-Manil (Belgian Luxemburg). — Malaise, C., 2.
Grandes-Rousses (Savoy).—Girardin, P., 1.
Grandidierite.—Lacroix, A., 10.
Grängesberg (Dalecarlia) —Launay, L. de, 4.
Granite, Aar massif intrusive.—Baltzer, A., 2.
——, Aberdeen, &c.—Joly, J., 6.
——, Africa (S.).—Mennell, F. P., 2.
——, Algeria.—Termier, P., 4.
——, Alpes-Maritimes.—Roccati, A., 1.
——, Alsace-Lorraine.—Bruhns, W., 1.
——, Antarctic.—Prior, G. T., 4.
——, Arctic Canada.—Hanbury, D. T., 1.
——, Baden.—Futterer, K., 1.
——, Bavaria.—Ries, A., 1; Schalch, F., 1.
——, Baveno.—Artini, E., 1.
——, Bohemia.—Hinterlechner, K., 2.
——, Caucasus.—Lœwinson-Lessing, F., 1.

Granite, Cornwall.—Hull, E., 2; Scrivenor, J. B., 1.
——, Crete.—Cayeux, L., 4.
——, crystallization of.—Hunt, A. R., 4; McMahon, C. A., 2.
——, diffusion into crystalline schists.—Greenly, E., 1.
——, Elba.—Achiardi, G. d', 1.
——, Himalayas.—McMahon, C. A., 1 & 3.
——, Ireland.—Elsden, J. V., 6; Seymour, H. J., 3.
——, Kirkcudbright.—Elsden, J. V., 3.
——, Kyffhäuser Mts.—Luedecke, O., 1.
——, Lausitz.—Nessing, R., 1.
——, Leicestershire.—Louis, D. A., 1.
——, Man, I. of.—Elsden, J. V., 2.
——, Maryland.—Clark, W. B., 4.
——, Montorfano.—Tacconi, E., 1.
——, Moravia.—Bock, H., 1.
——, Mysore.—Jayaram, B., 1; Primrose, A., 1; Sambasiva Iyer, V. S., 1 & 2; Slater, H. K., 1; Smeeth, W. F., 1; Wetherell, E. W., 1.
——, New Hampshire.—Perry, J. H., 1.
——, Ontario.—Graton, L. C., 1.
——, 'petit.'—Destinez, P., 1.
——, Pyrenees.—Stuart-Menteath, P. V., 3.
——, Rumania.—Butureanu, V. C., 3.
——, Savoy.—Haug, E., 4.
——, Styria.—Medanich, G., 1.
——, Sudan.—Linck, G., 6.
——, Tasmania.—Twelvetrees, W. H., 12.
——, Transvaal.—Sawyer, A. R., 3 & 5.
——, Utah.—Emmons, S. F., 2.
—— veins.—Harker, A., 3.
——, Vosges.—Van Werveke, L., 19.
——, Washington (U.S.A.).—Shedd, S., 1.
Granitic gravels, Nivernais.—Lamothe, R. de, 1.
Granitoid rocks, Rumania.—Uroshev, S., 1.
Graphite, Bavaria, Ceylon, & Siberia.—Launay, L. de, 3.
——, Canada.—Ingall, E. D., 2; Osann, A., 1; Struthers, J., 13.
——, India.—Grundy, J., 1.
——, Lausitz.—Nessing, R., 1.
——, Mexico.—Aguilera, J. G., 1.
——, Moravia.—Kretschmer, F., 1.
——, origin of.—Weinschenk, E., 6.
Graptolites.—Elles, G. L., 1; Hall, T. S., 1; Kerforne, F., 1; Perkins, G. H., 1.
Grassington Moor (Yorks).—Dakyns, J. R., 2.
Grätz (Styria).—Hilber, V., 1.
Gravels, Alsace-Lorraine.—Fœrster, B., 4.
——, Baltic-coast, transported.—Geinitz, E., 2.
——, Berkshire.—Blake, J. H., 1.
——, England (S.E.).—Monckton, H. W., 5.
——, Germany (N.), Jurassic in.—Oppenheim, P., 4.
Gravels, Gloucestershire, &c.—Callaway, C., 3; Reade, T. M., 3.
——, Long I. (N.Y.).—Fuller, M. L., 3.
——, Moravia.—Felix, J., 1.
——, Paris Basin.—Grossouvre, A. de, 2.
——, Rhein-Hesse terrace-.—Schopp H., 1.
——, Rhône.—Boistel, A., 1.
——, Suffolk.—Layard, N. F., 1.
——, Sylt, &c.—Martin, J., 1; Petersen, J., 1.
——, Thames Valley.—Haige, A. H., 1; Pocock, T. I., 1.
——, water-filtration & valley-.—Andrimont, R. d', 2.
——, Wiltshire.—Reid, C., 1 & 3.
Gravity, geology &.—Lapparent, A. de, 9.
——, measurement of.—Issel, A., 6.
——, mineral specific.—Behr, J., 1; Mackie, W., 1.
——, Munich.—Pfaff, F. W., 2.
——, Piedmont.—Aimonetti, C., 1.
——, planets &.—Borredon, G., 1–5.
—— variations of.—Helmert, F. R., 1; Montessus de Ballore, F. de, 2; Zachariæ, —, 1.
——, Württemberg.—Koch, K. R., 1.
Grays (Essex).—Salter, A. E., 1.
Great-Basin Region (Nevada, &c.).—Davis, W. M., 4.
Great Bear & Great Slave Lakes (N.W. Canada).—Bell, J. M., 1.
Great Britain.—Anon., 22; Atkinson, J. B., 1; Davies, T. J., 1; Foster, C. Le N., 1 & 2; Jentzsch, A., 3; Kendall, P. F., 2.
Great Western Railway, Denham cutting.—Howe, J. A., 1.
Greece.—Bock, J., 1; Cayeux, L., 1; Hilber, V., 2; *see also* Eubœa, &c.
Green Mts. (N.Y. & Vt.).—Dale, T. N., 1.
Green-Pond Mt. (N.J.).—Weller, S., 2.
Greenbushes (W. Austral.).—Krusch, P., 1.
Greenland.—Engell, M. C., 1; Pratt, J. H., 7; Winkler, C., 1.
Greensand (Lr.), Bedfordshire.—Home, H., 1; Lamplugh, G. W., 7; Norfolk.—Elsden, J. V., 5.
—— marl, New Jersey.—Parsons, A. L., 1.
Greenstone, Cornwall.—Hill, J. B., 1; Parkinson, J., 1.
Greenwood (British Columbia).—Johnson, P., 1.
Greisen, Cornwall.—Scrivenor, J. B., 1.
Grenada I. (W.I.).—Sapper, K., 3.
Grenoble (Dauphiné).—Loriol, P. de, 2.
Grenville (Quebec).—Ells, R. W., 3.
Grès de May, Normandy.—Shrubsole, O. A., 1.
Greta (Victoria).—Kitson, A. E., 2.
Grevillea.—Deane, H., 1.
Grey Hook (Spitsbergen).—Kayser, E., 1.
GRIESBACH, C. L. *See* Anon., 15.
Griffithides.—Illes, V., 1.
Griphopithecus.—Abel, O., 2.

Griqualand East (Cape Colony).—Schwarz, E. H. L., 1 & 2.
Grisons (Switzerland).—Hess, H., 1; Hœk, H., 1; Schmidt, C., 1,
Grive-Saint-Alban (Isère).—Major, C. I. F., 1.
Gryphæa.—Dacqué, E., 1; Shattuck, G. B., 1.
Guadeloupe (W.I.).—Lacroix, A., 5; Sapper, K., 10.
Guaranian.—Ameghino, F., 6.
Guatemala (Cent. Am.).—Anon., 22; Bergeat, A., 1–3; Brauns, R., 1; Rockstroh, E., 1; Sapper, K., 1; Schottler, W., 2.
Guembelia.—Prever, P., 1.
Guienne (France).—Stefano, G. de, 1.
GUNN, W. *See Obit.*, Horne, J., 1.
Gunstett (Alsace).—Hermann, A., 1.
Gypidula.—Weller, S., 2.
Gypsum, Canada.—Ingall, E. D., 2.
——, Eden Valley.—Burns, D., 1.
——, influence in nature.—Walther, J., 2.
——, origin of.—Delkeskamp, R., 1; Meunier, S., 13; Ochsenius, C., 4; Sherwin, R. S., 1.
——, United States.—Struthers, J., 10; Wilder, F. A., 1.
Gyracanthides.—Woodward, A. S., 5.

Haddington (Scotland).—Goodchild, J. G., 1.
Hadjin (Asia Minor).—Fuchs, T., 2; Penecke, K. A., 1.
Hadleigh (Suffolk).—Whitaker, W., 1.
Hadrachne.—Melander, A. L., 1.
Hadropithecus.—Lorenz, L. von, 1.
Hæmatite.—Launay, L. de, 2; Melczer, G., 2; Schaller, W. T., 1; Walker, W. E., 1.
Haidingerite.—Schulten, A. de, 2.
Hailes Quarry (Edinburgh).—Hepburn, D., 1.
Hainault (Belgium).—Cornet, J., 2–4; Delépine, G., 2.
Haine R. (Belgium).—Cornet, J., 4.
Halifax (Yorks.).—Simpson, W., 1.
Halimeda.—Lorenz, J. von, 2.
Halitherium.—Van Oort, E. D., 1.
HALL, C. M. *See Obit.*, Upham, W., 2.
Hallstatt (U. Austria).—Jæger, F. M., 1.
Hallwell - Cottage Beds, Cornwall.—Parkinson, J., 1.
Halmariphus.—Ameghino, F., 4.
Hamilton Formation, New York.—Cleland, H. F., 1; Ontario.—Shimer, H. W., 1.
Hamites.—Etheridge, R., Fil., 2; Weller, S., 1; Wollemann, A., 1.
Hampshire.—Bullen, R. A., 1; Monckton, H. W., 3; Ormerod, H. A., 1.
Hamulina.—Sarasin, C., 2.
Hanging valleys, California.—Branner, J. C., 5; Colorado.—Crosby, W. O., 2.
Hanover (Germany).—Kœnen, A. von, 2; Menzel, H., 1 & 2; Ochsenius, C., 1; Schucht, F., 1; Stille, H., 1; Wollemann, A., 1 & 3; Wunstorf, W., 1.
Hantkenia.—Prever, P., 1.
Hapalops.—Scott, W. B., 1.
Haplaræa & Haplohelia.—Felix, J., 2.
Haplocanthus.—Hatcher, J. B., 2.
Haploceras.—Weller, S., 1.
Hardanger Fjord (Norway).—Monckton, H. W., 4.
Häreng (Tyrol).—Dreger, J., 2.
Hares, Tertiary.—Matthew, W. D., 5.
Harlyn Bay (Cornwall).—Bullen, R. A., 2.
Harpagodes.—Shattuck, G. B., 1.
Harpes.—Reed, F. R. C., 5.
Harpoceras.—Burckhardt, C., 1; Loriol, P. de, 1.
HARRIS (I. H.) Collection, U.S. National Museum.—Schuchert, C., 2.
Harrogate (Yorks).—Smith, W. G., 1.
Hartenrod (Cassel).—Heineck, F., 2.
Härtsfeld Mts. (Württ.).—Endriss, K., 1.
Harz Mts. (Germany).—Everding, H., 1; Harbort, E., 2; Hecker, O., 3; Hornung, F., 1; Van Werveke, L., 11; Wuest, E., 3 & 4.
Haubourdin (Nord).—Gosselet, J., 5; Lagaisse, —., 1.
Haute-Garonne (France).—Boule, M., 1; Carez, L., 4; Michel-Lévy, A., 1; Moissan, H., 1.
Hauterivian, Provence.—Pellat, E., 1.
Hautrages (Hainault).—Cornet, J., 3.
Havana (Cuba).—Eigenmann, C. H., 1.
Hawaiian Is. (Pacific).—Branner, J. C., 3; Lindgren, W., 4.
Hawkesbury Sandstone.—Card, G. W., 2.
Hay Springs (Neb.).—Matthew, W. D., 6.
Haye, La, plateau (Brabant).—Imbeaux, —, 1.
Hazel, fossil, Sweden.—Andersson, G., 1.
Heathcotian, Victoria (Austral.).—Gregory, J. W., 3.
Heathfield (Sussex).—Dixon, H. B., 1; Woodward, H. B., 11.
Heaton Park (Lancs).—Dickson, J., 2.
Hebrides (Scotland).—Knight, G. A. F., 1.
Hedenstrœmia.—Smith, J. P., 1.
Heemskirk, Mt. (Tasm.).—Waller, G. A., 4.
Heid (Württ.).—Endriss, K., 1.
Heidelberg (Baden).—Cohen, E., 3; Schœtensack, O., 1.
Helderberg Limestone, Ohio.—Claypole E. W., 1.
Helenia.—Woodward, H., 7.
Heliastræa.—Osasco, E., 1.
Helicoprion.—Karspinski, A., 1; Simoëns, G., 2; Van den Broeck, E., 2; Van de Wiele, C., 1; Woodward, A. S., 3.
Heligoland, I. (North Sea).—Martin, J., 1; Petersen, J., 1.

Heliopora.—Felix, J., 2.
Helix (*Tachea*) *sylvana*-limestone.—Miller, K., 1; Rollier, L., 2.
Helodus.—Eastman, C. R., 1.
Helvetian, Randengrobkalk &.—Rollier, L., 3.
Hemera.—Buckman, S. S., 3; Jukes-Browne, A. J., 1.
Hemiaster.—Fourtau, R., 1; Gauthier, V., 1; Kossmat, F., 1; Lambert, J., 1.
Hemicidaris.—Gauthier, V., 2.
Hemipedina.—Loriol, P. de, 2.
Hemipristis.—Eastman, C. R., 2.
HENDERSON, J. *See Obit.*, Goodchild, J. G., 5.
Hendre Quarry, Glyn Ceiriog.—Moore, C. C., 1.
Henry Co. (Iowa).—Savage, T. E., 1.
Heraklea (Asia Minor).—Simmersbach, B., 1.
Hérault (Languedoc).—Angelis d'Ossat, G., 4.
Herborn (Cassel).—Heineck, F., 2; Walther, K., 1.
Herefordshire.—Callaway, C., 4; Moore, H. C., 1.
Hertfordshire.—Hopkinson, J., 2; Saunders, J., 1; Woodward, H. B., 2 & 9.
Herzegovina.—Hœrnes, R., 2.
Hesperornis.—Lucas, F. A., 8.
Hesse (Germany).—Buecking, H., 4; Chelius, C., 1; Delkeskamp, R., 2; Denckmann, A., 1; Harbort, E., 2; Klemm, G., 2; Lepsius, R., 1; Schopp, H., 1; Schultz, W., 1; Schuster, W., 1; Wuest, E., 2.
Heterangium.—Nathorst, A. G., 1.
Heterastræa.—Tomes, R. F., 1.
Heteroceras.—Whitfield, R. P., 2.
Heteroclitotriton.—Stefano, G. de, 1.
Heterocœnia.—Felix, J., 2.
Heterodera.—Pampaloni, L., 1.
Hexactinellidæ, Chalk.—Ungern-Sternberg, E. von, 1; *see also* Sponges.
Heynaldella.—Blake, W. P., 3.
Hicoria.—Knowlton, F. H., 1.
Highlands, N.W. (Scotland).—Lake, P., 1.
Hillend (Pentlands).—Strachan, J., 1.
Himalayas (Asia).—Freshfield, D. W., 1; Krafft, A. von, 1; Lake, P., 1; McMahon, C. A., 1 & 3; Montessus de Ballore, F. de, 2; Stephens, F. J., 1 & 2.
Hindia.—Weller, S., 2.
Hindu Khoosh (Himalayas).—McMahon, C. A., 1.
Hinnites.—Woods, H., 1.
Hipparion.—Venukov, P. I., 1.
Hippurites.—Franchis, F. de, 1; Hilber, V., 1; Longhi, P., 1; Pethœ, J., 3; Toucas, A., 2.
Hirschberg (Thuringia).—Zimmermann, E., 1.
Histrichoceras.—Etheridge, R., Fil., 2.
Histrixite.—Pettard, W. F., 1.
Hitcham Street (Suffolk).—Whitaker W., 1.
Hodder Place (Lancs).—Hind, W., 1.
Hogneau R. (Hainault).—Cornet, J., 2.
Hohenberg (Bavaria).—Regelmann, C., 1.
Hohen Tauern (Styria).—Weinschenk, E., 2.
Hohenzollern (Germany).—Schuetze, E., 2.
Hoigne R. (Liége).—Fourmarier, P., 1 & 3.
Hokkaidō (Japan).—Anon., 26; Yabe, H., 1.
Holaster.—Gauthier, V., 1; Wollemann, A., 1.
Holcotrochus.—Dennant, J., 1.
Höll-Loch (Muotta Valley).—Otter, J., 1.
Holland.—Lorié, J., 1.
HOLLAND, T. H. *See* Anon., 16.
Holocene. *See* Quaternary.
Homacanthus.—Eastman, C. R., 1.
Homalonotus.—Maurer, F., 1; Woodward, H., 1.
Homberg a. Efze (Hesse).—Schultz, W., 1.
Homœaster.—Lambert, J., 1.
Homœomorphy, plant.—Arber, E. A. N., 1.
Homomya.—Shattuck, G. B., 1.
Homunculus.—Ameghino, F., 4.
Honisgründe (Baden).—Futterer, K., 1.
Hooken Cliffs (Devon).—Rowe, A. W., 2.
Hoplites.—Burckhardt, C., 1; Uhlig, V., 1.
Horbury (Yorks).—Sutcliffe, R., 1.
Horn I. (Gulf of Carpentaria).—Jackson, C. F. V., 3.
Hornblende, Cappuccini.—Zambonini, F., 4; *see also* Amphibole.
Hornera.—Maplestone, C. M., 1.
Hořowitz (Bohemia).—Liebus, A., 1.
Horses, Palæolithic.—Munro, R., 1.
Hot Springs, Dominica.—Sapper, K., 8.
Howlite.—Giles, W. B., 1.
Huascolite.—Pettard, W. F., 1.
Hudsonite.—Weidman, S., 1.
Hull (Yorks).—Sheppard, T., 2, 3, & 5.
Humus.—Hardy, M., 1.
Hundés (Himalayas).—Krafft, A. von, 1.
Hungary.—Beck, H., 1; Bœckh, J., 1; Gorjanovič-Kramberger, K., 1; Halaváts, J., 1; Horusitzky, H., 2; Kalecsinszky, A. von, 2; Koch, A., 1–5; Lajos, F., 1; Liebus, A., 2; Lœrenthey, E., 1; Lugeon, M., 2; Pálfy, M. von, 2; Pethœ, J., 1–3; Posewitz, T., 1; Schafarzik, F., 1 & 2, 4–6; Timko, E., 1; Treitz, P., 1–3; Uhlig, V., 2; Vetters, H., 1; *see also* Carpathians Transylvania, &c.
Hunsruckia.—Traquair, R. H., 3.
Hunter R. (N.S.W.).—Atkinson, A. A., 1.
Huntsham (Hereford).—Wood, J. G., 1.
Hunyad (Hungary).—Halaváts, J., 1.
Hurricane Fault, Utah.—Huntington, E., 1.

Hüttenberg (Carinthia).—Baumgærtel, B., 1.
Hyæna.—Boule, M., 2.
Hyalophane.—Baumhauer, H., 4.
HYATT, A. *See Obit.*, Minot, C. S., 1; Packard, A. S., 1.
Hydnophora.—Felix, J., 2.
Hydrangea.—Knowlton, F. H., 1.
Hydrobia.—Fœrster, B., 5.
Hydrochœrus.—Ameghino, F., 2.
Hydrology, S. Dakota.—Todd, J. E., 1.
Hydromagnesite.—Brugnatelli, L., 2 & 3.
Hydrophora.—Osasco, E., 1.
Hydrothermal metamorphism, Devon schist.—Hunt, A. R., 7.
Hyopotamus.—Bush, L. P., 1.
Hyperodapedon.—Boulenger, G. A., 1.
Hypertragulidæ & *Hypisodus*.—Matthew, W. D., 5.
Hypsaster.—Gauthier, V., 1.
Hypsospatangus.—Loriol, P. de, 2.

Iano (Tuscany).—Barsanti, L., 1.
Ice-Age, Milky Way & the.—Very, F. W., 1.
——, origin of.—Longe, F. D., 1.
——, Wutach district. — Steinmann, G., 2.
Ice, Antarctic.—Arçtowski, H., 3; Bellingshausen, F. von, 1.
——, blocks transported by.—Prest, W. H., 1.
—— -erosion, Skye.—Harker, A., 1.
—— -field, Brazeau.—Coleman, A. P., 3.
—— -movement.—Crammer, H., 2.
Iceland.—Meunier, S., 12; Pjetursson, H., 1.
Ichthyosarcoliths.—Jacob, C., 1.
Ichthyosaurus. — Knight, W. C., 3; Merriam, J. C., 1; Sheppard, T., 1; Yakovlev, N., 3.
Idaho (U.S.A.).—Lakes, A., 2; L'Hame, W. E., 1; Russell, I. C., 3-5.
Idocrase.—Bœris, G., 1.
Idonearca.—Etheridge, R., Fil., 2.
Ifö, Lake (Gotland).—Moberg, J. C., 2.
Igneous intrusion, mechanics of.—Daly, R. A., 2 & 3.
—— rock-classification, chemical. — Osann, A., 5; macroscopic.—Ans, J. d', 1; Osann, A., 4; quantitative. — Cross, W., 6.
—— ——, contraction-cylinder in. — Kueppers, E., 1.
—— rocks, Abyssinia.—Raisin, C. A., 1.
—— ——, Algeria.—Ritter, É., 1.
—— ——, Alsace.—Linck, G., 1 & 2.
—— ——, analysis.—Fouqué, F., 1.
—— ——, Andes.—Becke, F., 1.
—— ——, Angola, &c.—Berg, G., 2.
—— ——, Antarctic.—Prior, G. T., 4.
—— ——, Aranyos Valley.—Pálfy, M. von, 1; Telegd, L. R. von, 1.
—— ——, Arizona.—Reagan, A. B., 3.
—— ——, Arran.—Gunn, W., 1.
—— ——, Bavaria.—Knebel, W. von, 1.
Igneous rocks, Bohemia. — Bauer, F., 1; Becke, F., 1; Graber, H. V., 1.
—— ——, Bristol district.—Morgan, C. L., 1.
—— ——, British Columbia.—Daly, R. A., 3.
—— ——, British East Africa.—Prior, G. T., 2.
—— ——, Caucasus.—Dervis, V., 1.
—— ——, Charnwood Forest.—Bennett, F. W., 1; Watts, W. W., 1.
—— ——, Cornwall.—Fox, H., 2; Hill, J. B., 1; Parkinson, J., 1.
—— ——, Crete.—Cayeux, L., 4.
—— ——, Cumberland. — Walker, E. E., 1.
—— ——, Dartmoor.—Worth, R. H., 1.
—— ——, devitrification in. — Bonney T. G., 12.
—— ——, earth's crust &.—Milch, L., 1.
—— ——, Eubœa.—Deprat, J., 2.
—— ——, Himalayas. — McMahon, C. A., 1.
—— ——, Ireland.—Andrews, M. K., 1; Cole, G. A. J., 1; Lamplugh, G. W., 6.
—— ——, Lombardy.—Salomon, W., 1.
—— ——, magnetism &.—Brunhes, B., &c., 1.
—— ——, Martinique.—Giraud, J., 1.
—— ——, Maryland.—Bascom, F., 1; Clark, W. B., 4.
—— ——, Mexico.—Felix, J., 5.
—— ——, Montenegro.— Žujovič, J. M., 1.
—— ——, New South Wales. — Card, G. W., 3.
—— ——, ore-deposits &. — Weed, W. H., 5.
—— ——, Quebec.—Adams, F. D., 3.
—— ——, Rajputana.—La Touche, T. D., 1.
—— ——, Rumania.—Buțureanŭ, V. C., 1 & 3; Cadere, D., 1.
—— ——, Sardinia.—Dannenberg, A., 1.
—— ——, Servia.—Petkov, V. K., 1.
—— ——, Sokotra, &c.—Kossmat, F., 1.
—— ——, Somaliland.—Arsandaux, H., 1.
—— ——, Tasmania.—Twelvetrees, W. H., 12.
—— ——, Thuringia.—Luedecke, O.
—— ——, Tyrol.—Dœlter, C., 3; Ippen, J. A., 1-7; Romberg, J., 2; Weinschenk, E., 2.
—— ——, vein-formation &. — Kemp, J. F., 2.
—— ——, Venetia. — Keyserling, H. von, 1.
—— ——, volume-composition of. — Moore, C. C., 1.
—— ——, Wisconsin.—Grant, U. A., 1.
—— ——, Württemberg. — Endriss, K., 1.
—— ——. *See also* Contact-metamorphism, Magmas, Basalt, &c.
Iguanodon.—Pauw, L. F. de, 1 & 2.
—— coprolites.—Bertrand, C. E., 1.
Iheringina & *Ilarionia*.—Loriol, P. de, 2.

Ilex.—Engelhardt, H., 1.
Ilford (Essex).—Howe, J. A., 2.
—— & Woodford Railway.—Holmes, T. V., 1.
Illænurus.—Weller, S., 2.
Ille-et-Vilaine (France).—Bigot, A., 2 & 4; Kerforne, F., 1–5; Lebesconte, P., 1; Lechartier, G., 1.
Illiez Valley (Savoy).—Preiswerk, H., 1.
Illinois (U.S.A.).—Ashley, G. H., 1; Melander, A. L., 1.
Ilmenite.—Day, D. T., 1.
Implements, flint & stone.—Beadnell, H. J. L., 2; Bennett, F. J., 1; Bullen, R. A., 1 & 2; Cunnington, W., 1; Kaschen, N., 1; Knowles, W. J., 1 & 2; Kœnen, C., 1; Layard, N. F., 1; Neilson, J., 1; Reid, C., 1; Schœtensack, O., 1; Wolff, F. von, 2.
Impruneta (Tuscany).—Trabucco, G., 1.
Inclusions, fluid.—Hunt, A. R, 6.
——, volcanic.—Lacroix, A., 9.
India.—Adamson, T., 1; Grundy, J., 1; Holland, T. H., 1 & 3; Stephens, F. J., 1 & 2; Stonier, G. A., 1 & 2; Walker, T. L.; 1; Warth, H., 1; *see also* Cutch, &c.
Indian Ocean. — Lomas, J., 3 & 6; Verrill, A. E., 1.
Indian Territory (U.S.A.). — Eldridge, G. H., 1; Taff, J. A., 1.
Indiana (U.S.A.). — Ashley, G. H., 1 & 2; Blatchley, W. S., 1, 2 & 3; Epperson, J., 1; Fœrste, A. F., 1; Hessler, R., 1; Hopkins, T. C., 1; Kindle, E. M., 1; Leach, J. C., 1; Newsom, J. F., 1 & 2; Nickles, J. M., 1; White, D., 2; Zaring, W. C., 1.
Infusorial earth, United States.—Pratt, J. H., 5.
Inn R. (Grisons).—Hess, H., 1.
Inn Valley (Tyrol).—Ampferer, O., 1.
Inoceramus. — Etheridge, R., Fil., 2; Petrascheck, W., 1; Shattuck, G. B., 1.
—— chalk.—Liebus, A., 2
Insects, Carboniferous.—Melander, A. L., 1; Pocock, R. I., 1 & 2; Sellards, E. H., 1; Stobbs, J. T., 1.
——, Permian.—Sellards, E. H., 3.
——, Quaternary.—Lapouge, G. de, 1.
——, Tertiary. — Fœrster, B., 3 & 5; Pampaloni, L., 1; Trotter, A., 1.
Interlaken (Switzerland).—Douvillé, H., 10.
Iola (Kan.).—Grimsley, G. P., 1.
Iona I. (Scotland).—Coomáraswámy, A. K., 4.
Iowa (U.S.A.).—Bain, H. F., 1; Beyer, S. W., 1; Calven, S., 1; Leonard, A. G., 1; Macbride, T. H., 1; Savage, T. E., 1; Udden, J. A., 1 & 2; Wilder, F. A., 1.
Ipswich (Suffolk).—Bassett, H., Jun., 1; Layard, N. F., 1; Whitaker, W., 1.
Iraniaster.—Gauthier, V., 1.
Ireland.—Anon., 38; Clark, R., 1; Cole. G. A. J., 1, 2, & 11; Elsden, J. V., 6; Foord, A. H., 1; Foster, C. Le N., 2; Johnson, T., 1; Joly, J., 6; Kendall, P. F., 2; Knowles, W. J., 2; O'Reilly, J. P., 1; Præger, R. L., 1; Seymour, H. J., 1–3; Ussher, R. J., 1; Wright, J., 1–3; *see also* Donegal, &c.
Irkutsk (Siberia).—Herz, O., 1.
Iron, Alsace-Lorraine.—Benecke, E. W., 1; Schweitzer, J., 1; Van Werveke, L., 15.
——, Bilbao.—Adams, F. D., 1.
——, Canada.—Coleman, A. P., 1 & 4; Ingall, E. D., 1 & 2; Pratt, J. H., 10.
——, Carinthia.—Baumgaertel, B., 1.
——, Congo Free State.—Cornet, J., 5.
——, Cuba.—Birkinbine, J., 1.
——, German E. Africa.—Macco, A., 1.
——, Germany (N.W.).—Harbort, E., 2.
——, Great Britain.—Foster, C. Le N., 2.
——, Greenland.—Winkler, C., 1.
——, India.—Grundy, J., 1.
——, meteoric.—Berwerth, F., 1; Campbell, H. D., 2; Cohen, E., 1 & 2; Klein, C., 2; Preston, H. L., 2.
——, Mexico.—Aguilera, J. G., 1; Rangel, M. F., 1; Villarello, J. de D., 1; White, W., Jun., 1; Witherbee, T. F., 1.
——, Michigan.—Jackson, J. F., 1.
——, Minnesota.—Leith, C. K., 1.
——, Moravia.—Kretschmer, F., 1.
——, Mysore.—Primrose, A., 1; Sambasiva Iyer, V. S., 2; Smeeth, W. F., 1.
——, Nassau.—Bellinger, J., 1; Lotz, H., 2.
——, Newfoundland.—Howley, J. P., 1.
——, New Jersey. — Kuemmel, W. H., 1.
——, New South Wales.—Pittman, E. F., 1.
——, New York State.—Reis, H., 1.
——, Norway.—Vogt, J. H. L., 2.
——, Nova Scotia.—Gilpin, E., Jun., 1 & 2; Weatherbe, D'A., 1.
——, Scotland.—Goodchild, J. G., 8.
——, Servia.—Bajetz, M. J., 1; Djlagoi, M. T., 1.
——, Silesia.—Berg, G., 1.
——, Staffordshire. — Cadman, J., 1; Hind, W., 7.
——, Styria.—Taffanel, J., 1.
——, Sussex.—Dawson, C., 1.
——, Sweden.—Launay, L. de, 4; Osborn, C. S., 1.
——, Tasmania. — Twelvetrees, W. H., 3 & 4; Waller, G. A., 2.
——, Taunus Mts.—Delkeskamp, R., 2.
——, United States, production.—Birkinbine, J., 1; Day, D. T., 1; Pratt, J. H., 10; *see also* Michigan, &c.
——, Urals.—Duparc, L., 4.
——, Westphalia.—Bruecher, M., 1; Wiese, T., 1.
Iron Gates (Danube).—Schafarzik, F., 5.
Isastræa.—Felix, J., 2.
Ischyodus.—Leriche, M., 1.
Iseo, Lake (Lombardy).—Baltzer, A., 1.
Isère (Dauphiné).—Kilian, W., 2.

Iserlohn (Westphalia).—Habets, A., 1.
Isocardia.—Dainelli, G., 3; Etheridge, R., Fil., 2; Shattuck, G. B., 1.
Isochilina.—Jones, T. R., 1.
Isoletta (Campania).—Flores, E., 2.
Isopneustes.—Airaghi, C., 2.
Istebner Beds, Silesia. — Wisniovski, T., 1.
Istria (Austria). — Hœrnes, R., 2; Nopčsa, F. von, Jun., 3.
Italy, bauxite-localities.—Achiardi, G. d', 2; Novarese, V., 3.
——, central railway.—Segré, C., 1.
——, geological literature.—Bonarelli, G., 1.
——. *See also* Piedmont, Tertiary, &c.
Ivigtok (Greenland).—Pratt, J. H., 7.
Ivory Coast (W. Africa). — Armas, M., 1.
Ivrea (Piedmont).—Novarese, V., 1.
Izalco Volcano (Guatemala).—Bergeat, A., 2; Sapper, K., 2.

Jacob's Cavern (Mo.).—Gould, C. N., 1.
Jade.—Colomba, L., 2; Franchi, S., 2; Issel, A., 2; Novarese, V., 2; Stella, A., 1; Wolff, F. von, 2.
Jækelocystis.—Schuchert, C., 5.
Jakobshavn (Greenland). — Engell, M. C., 1.
Jamiesonite.—Pettard, W. F., 1.
Janassa.—Eastman, C. R., 1.
Japan.—Anon., 26; Imamura, A., 1; Inouye, K., 1; Kanehara, N., 1; Kochibe, T., 1; Kusakabe, S., 1; Kutschera, M., 1; Loriol, P. de, 2; Norman, F. J., 1; Omori, F., 1-4; Ogawa, T., 1; Richthofen, F. von, 1; Rudolph, E., 2; Senkino, S., 1; Weber, M., 2; Yabe, H., 1.
Jaszitrabj (Hungary).—Knett, J., 3.
Jemez (New Mexico). — Reagan, A. B., 1.
JENNINGS, A. V. *See Obit.*, Anon., 8; Cole, G. A. J., 9.
John-Day River Beds, Oregon.—Knowlton, F. H., 1.
Johnson, Mt. (Quebec). — Adams, F. D., 3.
Johnstonite.—Pettard, W. F., 1.
Jolla, La (Cal.).—Lakes, A., 10.
Jolomita Valley (Rumania).—Bergeron, J., 1.
Jonquerettes (Vaucluse). — Châtelet, C., 1.
Jordan Valley (Palestine). — Libbey, W., 1.
Josefsthal (Moravia).—Bock, H., 1.
Joux Lakes (Swiss Jura). — Forel, F. A., 2; Golliez, H., 1.
Judith-River Beds. — Hatcher, J. B., 1 & 4.
Juglans.—Knowlton, F. H., 1.
Jujuy (Argentina).—Ducloux, E. H., 1.
Julia I. *See* Ferdinandea I.
Junction-beds, disturbance of.—Lamplugh, G. W., 4.
Jura, French. — Bourgeat, —, 1-3; Piroutet, M., 2; Swiss.—Forel, A., 2; Golliez, F. H., 1; Muehlberg, F., 3; Schardt, H., 1.
Jurassic, Algeria.—Ritter, E., 1.
——, Alsace-Lorraine.—Deecke, W., 1; Haug, E., 1; Van Werveke, L., 12.
——, Andes.—Burckhardt, C., 1,
——, Ariège.—Carez, L., 5 & 7.
——, Aube Valley.—Lemoine, P., 1.
——, Bavaria. — Kohler, E., 1; Schmierer, T., 1.
——, Biarritz.—Carez, L., 6.
——, Borneo.—Newton, R. B., 1.
——, Calvados.—Bigot, A., 5.
——, Cher.—Péron, A., 1.
—— concretions.—Raisin, C. A., 1.
——, Crete.—Cayeux, L., 2.
——, Cutch.—Kitchin, F. L., 1.
—— facies, Tanganyika.—Moore, J. E. S., 1.
——, Freiburg Alps.—Keidel, H., 1.
——, Gloucestershire.—Richardson, L., 1 & 4; Wethered, E. B., 1.
——, Grisons.—Hœk, H., 1.
——, Hanover.—Wunstorf, W., 1.
——, Kharkov Gov.—Borisiak, A., 1.
——, Leicester.—Fox-Strangways, C., 1.
—— limestone-water, Britain.—Woodward, H. B., 12.
——, Lombardy.—Bistram, A. von, 1.
——, Monmouthshire. — Richardson, L., 2; Vaughan, A., 1.
——, Northants.—Thompson, B., 1 & 3.
——, Salt Range.—Koken, E., 2.
——, Servia.—Eletz, V. M., 1.
——, Spain.—Sauvage, H. E., 1 & 2; Zeiller, R., 2.
——, Tunis.—Pervinquière, L., 1.
—— types, Geological Survey.—Allen, H. A., 1.
——, Umbria.—Lotti, B., 1.
——, Vendée.—Chartron, C., 1.
——, Venetia.—Campana, D. del, 1.
——, Wiltshire.—Jukes-Browne, A. J., 2; Reid, C., 7.
——, Worcestershire.—Hull, E., 1.
——, Württemberg. — Engel, —, 1; Freudenberg, W., 1.
——, Wyoming.—Loomis, F. B., 1.
——. *See also* Lias, &c.
Juslenville (Liége).—Fourmarier, P., 1.
JUSTEN, F. W. *See Obit.*, Anon., 9.
Jutland (Denmark).—Ussing, N. V. 1.

Kahlen Mts. (Lr. Austria).—Toula, F., 2.
Kainach (Styria).—Hilber, V., 1.
Kainite.—Van't Hoff, J. H., 5.
Kai-Ping (Chi-Li).—Drake, N. F., 1; Hoover, H. C., 1.
Kaiser-Wilhelm-Canal (Schleswig-Holstein).—Zeise, O., 1.
Kaïtago-Tabasaran (Daghestan).—Golubyatnikov, D. V., 1.
Kalahandi State (U. P., India). — Walker, T. L., 1.
Kalesi, New (Servia).—Vinassa de Regny, P., 2.

Kalgoorlie (W. Austral.).—Krusch, P., 1.

Kalgoorlite.—Spencer, L. J., 1.

Kalisz (Poland).—Levinski, J., 1.

Kambove (Congo F. S.).—Katanga, A., 1.

Kamyshin (Saratov).—Palibin, J. von, 1.

Kanawha black-flint beds.—White, I. C., 1.

—— R. (U.S.A.).—Campbell, M. R., 2.

Kandy (Ceylon). — Coomáraswámy, A. K., 2.

Kangaroo Hills (Queensl.). — Cameron, W. E., 3.

Kangaroo I. (S. Austral.). — Howchin, W., 1.

Kangchenjunga (Himalayas). — Freshfield, D. W., 1.

Kansas (U.S.A.). — Adams, G. I., 2; Beede, J. W., 1 & 3; Crane, W. R., 1 & 2; Crevecœur, F. F., 1; Grimsley, G. P., 1; Johnson, W. D., 1; Jones, A. W., 1; Keyes, C. R., 3; Lindgren, W., 2; Lovewell, J. T., 1; Merrill, G. P., 2; Sellards, E. H., 3; Sherwin, R. S., 1; Shimek, B., 1; Smith, A. J., 1; Upham, W., 1 & 4; Yates, J. A., 1.

Kaolin, Gotland.—Moberg, J. C., 2.

——, Kherson Gov.—Samoïlov, J., 3.

——, Normandy.—Bigot, A., 3.

——, occurrence of.—Dammer, —, 1.

Kara-Barun (Asia Minor). — Achiardi, G. d', 5.

Karachi (India.).—Oldham, R. D., 2.

Karikal (India).—Crossmann, M., 2.

Karlsbad (Bohemia).—Knett, J., 1.

Karoomys.—Broom, R., 2.

KARRER, F. *See Obit.*, Van den Broeck, E., 9.

Karroo Beds, Cape Colony.—Broom, R., 3; Transvaal.—Sawyer, A. R., 3.

Karwendel Mts. (Tyrol).—Ampferer, O., 2.

Kasan Gov. (Russia).—Vernadski, V. S., 1.

Kasbek (Caucasus).—Lœwinson-Lessing, F., 1.

Kashmir (India).—Eckenstein, O., 1.

Katanga (Congo F. S.).—Cornet, J., 5.

Katzenbückel (Württ.). — Freudenberg, W., 1.

Kearsarge, Mt. (N. Ha.). — Perry, J. H., 1.

Keewatin District (Canada).—Hanbury, D. T., 1.

Keewatin Formation, Minnesota.—Hall, C. W., 1.

Keisley Limestone-pebbles.—Gill, E. L., 1.

Kellerwald (Hesse).— Denckmann, A., 1 & 2.

Kelvedon (Essex).—Holmes, T. V., 3.

Kent.—Jukes-Browne, A. J., 6; Salter, A. E., 3; Woodward, A. S., 8.

Kent Peninsula (Arctic Canada).—Hanbury, D. T., 1.

Kentani (Cape Colony).—Rogers, A. W., 4.

Kentucky (U.S.A.).—Eldridge, G. H., 1; Fœrste, A. F., 1.

Kenya Mt. (Equatorial Africa).—Prior, G. T., 2.

Kerosene-shale, N. S. W.—Carne, J. E., 1; Pittman, E. F., 1.

——, Tasmania.—Twelvetrees, W. H., 2.

Kersantonite.—Barrois, C., 6; Ippen, J. A., 4.

Kesh Caves, Sligo.—Præger, R. L., 1.

Kessingland (Suffolk). — Whitaker, W., 1.

Ketchikan (Alaska).—Brooks, A. H., 3.

Keuper, Devon.—Somervail, A., 3.

——, Franche Comté.—Piroutet, M., 2.

——, Monmouthshire.—Richardson, L., 2.

——. *See also* Trias, &c.

Kew Gardens.—Clarke, C. B 1.

Keweenawan (Minnesota).—Hall, C. W., 1.

——, trap-rocks.—Grant, U. A., 1.

Keynsham (Somerset).—Vaughan, A., 2.

Kharkov Gov. (Russia).—Borisiak, A., 1.

Kherson Gov. (Russia).—Samoïlov, J., 3.

Kibbanhalli (Mysore). — Wetherell, E. W., 1.

Kien Valley (Berne).—Gerber, E., 1.

Kiev Gov. (Russia).—Tutkovski, P., 1.

Kimberley (Cape Colony).—Sutton, J. R., 1.

Kimeridge Clay, Yorkshire.—Sheppard, T., 1.

Kimeridgian, Bavaria.—Schmierer, T., 1.

——, Catalonia.—Zeiller, R., 2.

——, Loire.—Lemoine, P., 1.

Kinbrace (Sutherland).—Greenly, E., 1.

KING, C. *See Obit.*, Emmons, S. F., 1.

Kingena.—Dacqué, E., 1.

Kingsthorpe (Northants). — Thompson, B., 1.

Kingston (N.Z.).—Marshall, P., 1.

Kinta (Malay Pen.).—Penrose, R. A. F., Jun., 1.

Kintyre (Scotland).—Gunn, W., 1.

Kippford (Kirkcudbright).—Elsden, J. V., 3.

Kirchbichl (Tyrol).—Dreger, J., 2.

KIRKBY, J. W. *See Obit.*, Horne, J., 3.

Kirunavaara (Norrbotten).—Launay, L. de, 4.

Kitid (Hungary).—Halaváts, J., 1.

Kittatinny Valley (N. J.).—Weller, S., 3.

Kladno (Bohemia).—Weithofer, K. A., 1.

Klamath Mts. (Oreg. & Cal.).—Diller, J. S., 1 & 2; Hershey, O. H., 1, 2, 3, & 4.

Klausen (Tyrol).—Weinschenk, E., 7.

Klippen, Carpathians.—Lugeon, M., 2; Schafarzik, F., 2.

Klondyke (N.W. Canada).—Dawson, G. M., 1; Miers, H. A., 4.

Klosterneuberg (Lr. Austria).—Toula, F., 2.

KNIGHT, W. C. *See Obit.*, Nelson, A., 1.

Knobstone Group, Indiana. — Newsom, J. F., 2.

Knowle (Wilts).—Cunnington, W., 1.
Knoxvillite.—Pettard, W. F., 1.
Knoydart Formation, Nova Scotia. — Ami, H. M., 3.
Kochia.—Maurer, F., 1.
Kolar (Mysore).—Jayaram, B., 1; Primrose, A., 1; Slater, H. K., 1.
Kolberg (Pomerania).—Berendt, G., 1.
Kolozsvár (Hungary). — Lœrenthey, E., 2.
Königsberg (Hesse).—Parkinson, H., 1.
Kopparberg (Svealand).—Launay, L. de, 4.
Kordofan (Sudan).—Linck, G., 6.
Korea (N.E. Asia).—Kotô, B., 1.
Kosva (Urals).—Duparc, L., 5.
Kovel (Volhynia).—Tutkovski, P., 1.
Krakatau (D. E. I.).—Kewitsch, G., 1.
Krapina (Croatia).—Lapouge, G. de, 2.
Krasnovodsk (Transcaspian). — Vernadski, V. S., 1.
Kremsmünster (U. Austria). — Schwab, P. F., 1.
Krennerite.—Smith, G. F. H., 1 & 2.
Kristinehamn (Värmland).—Blomberg, A., 2.
Kritzendorf (Lr. Austria).—Toula, F., 2.
Krivan Mts. (Hungary).—Uhlig, V., 2.
Kron R. (Alsace-Lorraine). — Valentin, J., 1.
Kulundinske Steppe (Tomsk Gov.). — Tanfilïev, G. I., 1.
Kumaon (N.W. India).—Stephens, F. J., 1 & 2.
Kunigal (Mysore).—Wetherell, E. W., 2.
Kunzite.—Baskerville, C., 1.
Kurrajong Heights fault (N.S.W.). — David, T. W. E., 1.
Kuss (Dalecarlia).—Lœfstrand, G., 1.
Kustarachne.—Melander, A. L., 1.
Kyffhäuser Mts. (Thuringia).—Luedecke, O., 1; Naumann, E., 1.
Kyrskslätt (Finland).—Rosberg, J. E., 1.

Labradorite, Kherson.—Samoïlov, J., 3.
Laccolites, Caucasus.—Dervis, V., 1.
LACHAT, H. *See Obit.*, Termier, P., 1.
Lochs. *See* Lakes.
LACOE, R. D. *See Obit.*, White, D., 1.
Ladrones Is. (Pacific).—Skeats, E. W., 1.
Laekenian, Belgium.—Forir, H., 1.
Lagena.—Schick, T., 1; Weller, S., 1.
Lagenostoma.—Oliver, F. W., 1.
Lägern Mt. (Aargau).—Muehlberg, F., 2.
Lagoons, Russia (S.).—Sokolov, N., 1.
Laharpeia.—Prever, P., 1.
Lähn (Silesia).—Scupin, H., 1.
Lahn R. (Nassau).—Bellringer, J., 2.
Lahr (Baden).—Salomon, W., 2.
Lake-deposits, Como.—Artini, E., 2.
—— ——, Germany (N.).—Jentzsch, A., 1.
Lake District, English.—Postlethwaite, J., 1.
Lake-water, chemical composition of Swiss.—Burcart, E., 1; colour of, Snowdon.—Dakyns, J. R., 1.
Lakes, American glacial.—Upham, W., 5.
——, Balkan Peninsula. — Peucker, K., 1.
——, Canada.—Bell, J. M., 1.
——, Cheviot glacier.—Kendall, P. F., 3.
——, Engadine (Upper). — Delebecque, A., 1.
——, Gotland (W.).—Kjellén, R., 2.
——, Italian (S.) Quaternary.—Lorenzo, G. de, 2.
——, Mexico (New & Old).—Keyes, C. R., 5.
——, Montana.—Elrod, M. J., 1.
——, Scotland. — Johnston, T. N., 1; Murray, Sir J., 1.
——, Sundgau.—Klæhn, G., 1.
——, Swiss.—Burcart, E., 1; Preller, C. S. Du R., 1; Forel, F. A., 2.
——, underground, Swiss Jura.—Forel, F. A., 2.
——, Vosges.—Van Werveke, L., 7.
——, Wales (N.).—Jehu, T. J., 1.
——, Wisconsin.—Fenneman, N. M., 1.
Lamberhurst (Sussex).—Thorpe, T. E., 1.
Lamellibranchiata, Carboniferous. — Beede, J. W., 1; Hind, W., 1, 4, & 7; Yakovlev, N., 4; Parkinson, H., 1; Whitfield, R. P., 1.
——, Cretaceous.—Antula, J., 1; Burckhardt, C., 1; Dacqué, E., 1; Douvillé, H., 5 & 6; Etheridge, R., Fil., 2; Franchis, F. de, 1; Hœrnes, R., 2; Paulcke, W., 1, Pethœ, J., 3; Petrascheck, W., 1; Schubert, R. J., 3; Shattuck, G. B., 1; Stanton, T. W., 1 & 2; Toucas, A., 2; Weller, S., 1; Whitfield, R. P., 3; Wollemann, A., 1; Woods, H., 1.
——, DEFRANCE Collection.—Bigot, A., 2.
——, Devonian. — Drevermann, F., 2; Kayser, E., 1; Maurer, F., 1; Walther, K., 1; Weller, S., 2.
——, Jurassic. — Bistram, A. von, 1; Kitchin, F. L., 1; Newton, R. B., 1; Sokolov, N., 2.
——, morphology of.—Ruedemann, R., 1.
——, Permian.—Hind, W., 3; Yakovlev, N., 1.
——, Quaternary.—Dall, W. H., 1; Dennant, J., 3; Johnson, J. P., 1.
——, Silurian.—Weller, S., 2.
——, Tertiary. — Blanckenhorn, M., 2; Casey, T. L., 1; Crema, C., 1; Dainelli, G., 3; Dall, W. H., 1 & 3; Dennant, J., 3; Depéret, C., 4; Dollfus, G. F., 4 & 6; Dreger, J., 2; Fœrster, B., 5; Gorjanović-Kramberger, K., 2; Martelli, A., 1; Nelli, B., 1; Oppenheim, P., 6; Pavlov, P. S., 2; Ugolini, R., 4; Vincent, E., 2.
——, Triassic.—Bittner, A., 1; Frech, F., 1; Tornquist, A., 3.

Lamna.—Eastman, C. R., 2; Koch, A., 4; Leriche, M., 1.
Lampadocorys.—Airaghi, C., 2.
Lamprophyre, Geneva erratics.—Duparc, L., 3.
——, New South Wales.—Card, G. W., 3.
Lancashire.—Anon., 18; Arber, E. A. N., 2; Baldwin, W., 1; Dickson, J., 2; Hind, W., 1 & 2; Lomas, J., 2; Pickstone, W., 2; Reade, T. M., 1.
Lance Creek (Wy.).—Hatcher, J. B., 1.
Land, changes of level, Britanny.—Montessus de Ballore, F. de, 1.
——, ——, England (S.E.). — Monckton, H. W., 5; Massachusetts. — Tarr, R. S., 1; Naples (Bay of).—Guenther, R. T., 1; Scandinavia.—Sernander, R., 2.
LANDON, J. *See Obit.*, Lapworth, C., 1.
Landskron (Bohemia).—Tietze, E., 1.
Landslips, Alberta Terr.—Brewer, W. M., 2; Lakes, A., 11.
——, Colorado.—Lay, H. C., 1.
——, Germany (N.).—Jentzsch, A., 2.
——, Sweden.—Sjœgren, H., 1.
Languedoc (France).—Angelis d'Ossat, G., 4; Carez, L., 1; Depéret, C., 2; Michel-Lévy, A., 1.
Lansing (Kan.).—Holmes, W. H., 1; Pearson, K., 1; Shimek, B., 1; Upham, W., 1 & 4; Winchell, N. H., 3.
Lantern, mineralogical projection. — Brauns, R., 2.
Lanterna Valley (Lombardy).—Brugnatelli, L.
Laramie Formation.—Hay, O. P., 2; Whitfield, R. P., 3.
Lasmogyra.—Felix, J., 2.
Laterite.—Du Bois, G. C., 1; Elsden, J. V., 1; Holland, T. H., 2; Warth, H., 1.
Lates.—Gorjanovič-Kramberger, K., 1.
Latimæandraræa.—Felix, J., 2.
Latrunculus.—Cossmann, M., 2.
Laubach (Hesse).—Klemm, G., 2.
Laufbach Valley (Baden). — Futterer, K., 1.
Laurentian, Ontario.—Graton, L. C., 1.
—— peneplain, Canada.—Wilson, A. W. G., 1.
Lauriano (Campania).—Parona, C. F., 1.
Laurus.—Knowlton, F. H., 1.
Lausanne (Vaud). — Lugeon, M., 5; Renevier, E., 1 & 2.
Lausitz (Saxony).—Nessing, R., 1.
Lava-plugs. *See* Volanic plugs.
Lavas, Arizona.—Reagan, A. B., 2 & 3.
——, Vesuvius.—Matteucci, R. V., 1; Medanich, G., 1.
——, West Indies.—Sapper, K., 8.
Laziale volcano (Romagna).—Verri, A., 5.
Lea R. (Herts).—Fitzmaurice, M., 1; Saunders, J., 1.
—— Valley reservoirs (Essex).—Holmes, T. V., 2.
Lead, Alston Moor.—Nall, W., 1.
——, Arkansas.—Branner, J. C., 2.
Lead, Bavaria.—Kohler, E., 1; Weinschenk, E., 8.
——, Britanny.—Kerforne, F., 4.
——, Cornwall & Devon.—Collins, J. H., 1.
——, determination of, in ore.—Bull, I. C., 1.
—— -glance.—Zimanyi, K., 1.
——, Mexico.—Malcolmson, J. W., 1.
——, Mississippi Valley.—Keyes, C. R., 2.
——, Missouri.—Bain, H. F., 2.
——, Montana.—Weed, W. H., 7.
——, Moravia.—Kretschmer, F., 1.
——, New South Wales.—Beaumont, E. K., 1; Warren, J., 1.
——, Old Red Sandstone, Scotland.—Mackie, W., 6.
——, Parapara.—Park, J., 2.
——, Sardinia.—Rimatori, C., 1.
——, Servia.—Djlagoi, M. T., 1.
——, Silesia.—Guerich, G., 2.
——, Tasmania.—Waller, G. A., 2.
——, Taunus Mts.—Delkeskamp, R., 2.
——, Tyrol.—Weinschenk, E., 7 & 8.
——, United States.—Day, D. T., 1; Kirchoff, C., 2.
Lebanon (Palestine).—Nehring, A., 1.
Lecanites.—Airaghi, C., 1; Schellwien, E., 1.
Lecce (Apulia).—Franchis, F. de, 1; Taramelli, T., 4.
LE CONTE, J. *See Obit.*, Christy, S. B., 1.
Leda.—Dainelli, G., 3.
Ledian, Belgium.—Forir, H.
Ledopsis.—Maurer, F., 1.
Leffe (Lombardy).—Tacconi, E., 2.
Leicester.—Biggs, J. T., 1.
Leicestershire.—Anon., 28; Bennett, F. W., 1; Fox-Strangways, C., 1; Louis, D. A., 1; Watts, W. W., 1; Woodward, H. B., 6.
Leighton Buzzard (Beds).—Lamplugh, G. W., 7.
Leiomyalina.—Bœhm, G., 1.
Leiopedina.—Checchia-Rispoli, G., 1.
Leipzig (Saxony).—Credner, H., 1.
Leitha-limestone, Austria.—Fuchs, T., 3.
Leitrim (Ireland).—Cole, G. A. J., 6 & 7.
LEMBERG, J. *See Obit.*, Lœwinson-Lessing, F., 2.
Lemberg (Styria).—Láska, W., 1.
Lemur, fossil.—Smith, G. E., 1; Wortman, J. L., 1.
Lena R. (Siberia).—Gerasemov, A. P., 1 Obruchev, V., 1.
Leny Grit.—Cunningham-Craig, E. H., 1.
Léon, Prov. of (Spain).—Mallada, L., 1.
Leona Heights (Cal.).—Schaller, W. T., 1.
Leonite.—Van't Hoff, J. H., 5.
Leperditella.—Weller, S., 2.
Lepidocyclina.—Oppenheim, P., 6.
Lepidolite.—Baumhauer, H., 3; Pratt, J. H., 1.

Lepidotus.—Sauvage, H. E., 2.
Leptocheirus.—Merriam, J. C., 1.
Leptodesma.—Bistram, A. von, 1.
Leptodomus.—Maurer, F., 1; Walther, K., 1.
Leptograptus.—Elles, G. L., 1.
Leptolepis.—Sauvage, H. E., 2.
Leptophyllia.—Shattuck, G. B., 1.
Leptoplesictis.—Major, C. I. F., 1.
Lerida (Spain).—Sauvage, H. E., 1.
LESLEY, J. P. *See Obit.*, Frazer, P., 1; Halberstadt, B., 1; Lyman, B. S., 3.
Lesnewth Slates, Cornwall.—Parkinson, J., 1.
Lesse R. (Belgium).—Van den Broeck, E., 15.
Leuciscus.—Lucas, F. A., 5.
Levant du Fleuu, mine-flooding, Cuesmes.—Kersten, J., 1.
LEWIS, J. F. *See Obit.*, Raymond, R. W., 2.
Lewis Range (Mont.).—Willis, B., 1.
Lewisham.—Salter, A. E., 2.
Lhotka (Bohemia).—Želízko, J. V., 1.
Lias, Ariège.—Carez, L., 5.
——, Bornholm.—Mœller, H., 1.
——, Keynsham.—Vaughan, A., 2.
——, Lauriano.—Parona, C. F., 1.
——, Lorraine.—Van Werveke, L., 17.
——, Monmouthshire.—Richardson, L., 2; Vaughan, A., 1.
——, Northants.—Thompson, B., 1–3.
——, Rhenish Prussia.—Mueller, G., 1.
——, Savoy.—Lory, P., 1; Preiswerk, H., 1.
——, Solda Valley.—Bistram, A. von, 1.
——, Switzerland.—Lory, P., 1.
——, Umbria.—Lotti, B., 1.
——, Vendée.—Chartron, C., 1.
——, Würtemberg.—Schick, T., 1.
——. *See also* Jurassic.
Libellula.—Pampaloni, L., 1.
Lichas.—Reed, F. R. C., 1; Walther, K., 1.
Liége (Belgium).—Cornet, J., 1; Destinez, P., 1; Fourmarier, P., 1 & 3; Gevers-Orban, E., 1.
Lienz (Tyrol).—Geyer, L., 1.
Liévin (Pas-de-Calais).—Desailly, —, 1; Gosselet, J., 5; Stainier, X., 1.
Life on the earth, advent of.—Meunier, S., 17; Life-periods, geological.—Woodward, H., 12; *see also* Evolution, &c.
Lignite, Ain.—Chanel, E., 1.
——, Calabria.—Stefano, G. de, 4.
——, Venetia.—Taramelli, T., 2.
Liguria (Italy).—Capellini, G., 2; Cortese, P., 1; Figari, L., 1; Franchi, S., 1 & 2; Pellati, N., 1; Ristori, G., 2; Sacco, F., 2.
Lilla Elgsjön (Gotland).—Nordenskjœld, I., 1.
Lille (Nord).—Lebrun, —, 1.
Lillianite.—Pettard, W. F., 1.
Lima.—Bistram, A. von, 1; Longhi, P., 1; Shattuck, G. B., 1; Wollemann, A., 1; Yakovlev, N., 4.
Liman. *See* Estuaries.
Limatulina.—Hind, W., 4.
Limbourg (Belgium).—Harzé, É., 1 & 2; Lapparent, A. de, 4; Simoëns, G., 4–8; Stainier, X., 1–3; *see also* Campine.
Limestone, Abyssinia.—Raisin, C. A. 1.
——, Carboniferous. *See* Carboniferous.
——, coral-islands.—Skeats, E. W., 1.
——, Creechbarrow. — Hudleston, W. H., 1.
——, crystalline. — Coomáraswámy, A. K., 4.
——, Elba.—Achiardi, G. d', 1.
——, *Helix sylvana*-.—Rollier, L., 2.
——, Ille-et-Vilaine.—Lechartier, G., 1.
——, Ireland.—Elsden, J. V., 6.
——, Italian Liassic.—Parona, C. F., 1.
——, Lombardy.—Sestini, F., 1.
——, Michigan.—Russell, I. C., 2.
——, Mysore.—Primrose, A., 1; Sambasiva-Iyer, V. S., 2; Wetherell, E. W., 4.
——, Ontario.—Graton, L. C., 1.
——, origin of.—Strijov, I. N., 1; Wethered, E. B., 1.
——, Pendleside.—Wellburn, E. D., 1.
——, Prussia (W.), Quaternary. — Jentzsch, A., 4.
——, Tennessee.—Fœrste, A. F., 3.
——, Vermont.—Perkins, G. H., 1.
Limnæus.—Fœrster, B., 5.
Limnocardium. — Andrussov, N., 1; Gorjanović-Kramberger, K., 2.
Limnosaurus.—Nopčsa, F. von, Jun., 4.
Limousin (France).—Grossouvre, A. de, 5.
Lincolnshire.—Preston, H., 1.
Lindsay, Mt. (N.S.W.).—Andrews, E. C., 2.
Ling Shan (China).—Drake, N. F., 1.
Lingula.—Chapman, F., 1; Etheridge, R., Fil., 2.
Linnarssonella.—Walcott, C. D., 4.
Linth R. (Switzerland).—Penck, A., 1.
Liostracina.—Monke, H., 1.
Lippe-Schaumburg (Germany). — Harbort, E., 1.
Liquidambar.—Knowlton, F. H., 1.
Litharæa.—Felix, J., 2 & 3.
Lithium-minerals.—Pratt, J. H., 1.
Lithothamnium.—Savornin, J., 1.
Litracanthus.—Woodward, A. S., 6.
Little Cottonwood Cañon (Utah).—Emmons, S. F., 2.
Littorina.—Moore, J. E. S., 1.
—— -clay, Gotland.—Post, L. von, 1.
Livingston Range (Mont.).—Willis, B., 1.
Ljubet Mts. (Servia).—Petkov, M. K., 1.
Llannon (Caermarthen).—Strahan, A., 3.
Llyn Llydaw (Snowdon).—Dakyns, J. R., 1.
Lobsann (Alsace).—Andreæ, A., 3 & 4.
Loch-Lomond district (Scotland). — Cunningham-Craig, E. H., 1.

Lœss, Alsace-Lorraine.—Fœrster, B., 4.
——, China.—Wright, G. F., 1.
——, Kansas.—Shimek, B., 1; Upham, W., 1.
——, Nebraska.—Barbour, E. H., 1.
——, Turkestan.—Levat, E. D., 1.
——. *See also* Quaternary,&c.
Loire Basin (France).—Dollfus, G. F., 6; Lamothe, R. de, 1; Lemoine, P., 1.
Loka (Orebro).—Blomberg, A., 1.
Lombardy (Italy).— Airaghi, C., 1; Baltzer, A., 1; Bistram, A. von, 1 & 2; Dainelli, G., 2; Flores, E., 1 & 3; Hammer, V., 1· Hecker, O., 2; Porro, C., 1; Salmojraghi, F., 1; Salomon, W., 1; Sestini, F., 1; Tacconi, E., 2; Taramelli, T., 1.
London.—Bennett, F. J., 1; weathering of building-stone in.—Anon., 33.
London Clay, Berkshire.—Blake, J. H., 1.
Long Hill (Conn.).—Hobbs, W. H., 1.
Long Island (N.Y.).—Fuller, M. L., 3 Veatch, A. C., 1.
Long Plains (Tasmania).—Twelvetrees, W. H., 3.
Lophiodon.—Depéret, C., 1.
Lorenzdorf (Silesia).—Guerich, G., 1.
Lorraine.—Fliche, P., 3 & 4; Herrmann, A., 1; Van Werveke, L., 15–17; Villain, F., 1; *see also* Alsace-Lorraine.
Lossiemouth (Elgin).—Boulenger, G. A., 1.
Lot (France).—Moureé, G., 2; Viré, A., 1.
Louisiana (U.S.A.).—Dall, W. H., 2; Hilgard, W. H., 1.
Lovén, S. *See Obit.*, Théel, H., 1.
Löwenberg (Silesia).—Scupin, H., 1.
Lowestoft (Suffolk).—Whitaker, W., 1.
Loxonema.—Chartron, C., 1; Weller, S., 2.
Lubu (Rhodesia).—Molyneux, A. J. C., 1.
Lucaci massif (Rumania).—Butureanŭ, V. C., 1.
Luchon (Haute-Garonne).—Moissan, H., 1.
Lucina.—Casey, T. L., 1; Vincent, É., 2; Weller, S., 1.
Ludlow (Shropshire).—Moore, H. C., 1.
Lugano, Lake (N. Italy).—Bistram, A. von, 2.
Lune R. (Lancs.).—Reade, T. M., 1.
Lüneburg (Hanover).—Wollemann, A., 1.
Luossavaara (Norbotten).—Launay, L. de, 4.
Lussan (Gard).—Pellat, E., 1.
Lutetian, Sudan.—Lapparent, A. de, 2, 7 & 8; *see also* Tertiary.
Lutraria.—Dollfus, G. F., 6.
Luxemburg (Belgium).—Delvaux, E., 1.
—— (Grand Duchy).—Benecke, E. W., 1; Van Werveke, L., 12 & 15.
Luzonite.—Stevanović, S., 1.
Lycopodiaceæ, Trias.—Fliche, P., 4.
Lycosuchus.—Broom, R., 4.
Lyell, Mt. (Tasmania).—Stewart, H., 1.
Lyginodendron.—Lomas, J., 4; Oliver, F. W., 1.
Lyon Co. (Kan.).—Smith, A. J., 1.
Lyria.—Casey, T. L., 1.
Lytoceras.—Fucini, A., 2; Uhlig, V., 1; Yabe, H., 1.

Maccoyella.—Etheridge, R., Fil., 2.
Macdonnell Range (N. Terr., S. Austral.).—Brown, H. Y. L., 2.
Macedonia (Turkey).—Peucker, K., 1.
Macerata (Marches, Italy).—Moderni, P., 1.
Machairodus.—Ameghino, F., 2; Dawkins, W. B., 1.
Mackay district (Queensl.).—Cameron, W. E., 3.
Macpherson, J. *See Obit.*, Barrois, C., 4; Belinfante, L. L., 1.
Macrocallista.—Etheridge, R., Fil., 2.
Macrocephalites.—Burckhardt, C., 1.
Macrodon.—Yakovlev, N., 4.
Macrodus.—Drevermann, F., 2.
Macrostachya.—Nathorst, A. G., 1.
Madagascar.—Arnaud, A., 2; Grandidier, G., 1 & 2; Lacroix, A., 11; Lambert, J., 1; Lemoine, R., 1; Lorenz, L. von, 1.
Madre, Sierra (Mexico).—Weed, W. H., 3.
Mæandrastræa.—Felix, J., 2.
Maes-Têg (Glamorgan).—Strahan, A., 5.
Maestrichtian, Hainault.—Cornet, J., 4.
Magdeburg (Prussia).—Wahnschaffe, F., 1.
Magmas, rock.—Ippen, J. A., 1 & 5; Lenarčič, J., 2; Linck, G., 4; Matteucci, R. V., 1; Schweig, M., 1; Weinschenk, E., 4.
Magnesian Limestone, Durham.—Abbott, G., 1.
Magnesian salt-deposits, Germany.—Ochsenius, C., 1.
Magnetic iron-ore, Germany.—Berg, G., 1; Lotz, H., 2; *see also* Magnetite.
—— variations, Puy-de-Dôme.—Brunhes, B., 1 & 2; Ries.—Schmidt, A., 1.
Magnetism, rock.—Brunhes, B., 1.
Magnetite.—Bajetz, M. J., 1; Bœris, G., 1; Bonney, T. G., 3; Harbort, E., 2; Launay, L. de, 2; Primrose, A., 1; Reiss, H., 1.; Scrivenor, J. B., 3; Struthers, J., 15; Thomæ, W. F. A., 1.
Maine (U.S.A.).—Willis, B., 2.
Mainz (Hesse).—Schuster, W., 1; Steuer, A., 2.
Majanthemophyllum.—Penhallow, D. P., 1.
Malay Peninsula.—Penrose, R. A. F., Jun., 1.
Maldives (Indian Ocean).—Gardiner, J. S., 1.
Malga Gardone (Tyrol).—Ippen, J. A., 6.

Malla Johar (Hundés).—Krafft, A. von, 1.
Malletia.—Etheridge, R., Fil., 2.
Malmedy (Alsace-Lorraine). — Van Werveke, L., 1.
Malvern, ancient Straits of.—Callaway, C., 3.
Mammalia, brains of fossil lemurs, &c. —Smith, G. E., 1.
——, Cretaceous. — Ameghino, F., 2; Wortman, J. L., 1.
——, evolution of.—Lydekker, R., 2.
——, Jurassic.—Broom, R., 2.
——, Quaternary.—Bate, D. M. A., 1; Boule, M., 2; Dœderlein, L., 1 & 2; Hepburn, D., 1; Koch, A., 3; Kříz, M., 1; Lucas, F. A., 4; Matthew, W. D., 6; Munro, R., 1; Newton, E. T., 2; Rutot, A., 5; Seguenza, L., 2; Sheppard, T., 3; Stingelin, T., 1; Stromer, E. von, 5; Toula, F., 4.
——, skulls of.—Osborn, H. F., 1.
——, subfossil.—Eastman, C. R., 2.
——, Tertiary.—Alessandri, G. de, 1; Ameghino, F., 1–5; Andrews, C. W., 3; Dawkins, W. B., 1; Deninger, K., 1; Depéret, C., 1 & 3; Flores, E., 2; Fœrster, B., 5; Lankester, E. R., 1 & 2; Lucas, F. A., 3; Major, C. I. F., 1; Matthew, W. D., 1–5; Nordenskjœld, E., 1, 2; Osborn, H. F., 1–4; Schottler, W., 1; Scott, W. B., 1; Stehlin, H. G., 2; Stromer, E. von, 2–4; Ugolini, R., 2; Van Oort, E. D., 1; Venukov, P. I., 1; Wortman, J. L., 1.
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Mammoth, Hull.—Sheppard, T., 3.
——, Siberia.—Herz, O., 1; Kaschen, N., 1; Rein, J., 1; Tolmashev, I. P., 1; Woodward, A. S., 9.
Man, advent of, America.—Matthew, G. F., 2.
——, America (N.).—Hrdlička, A., 1; Sternberg, C. H., 1; *see also* Lansing.
——, antiquity of.—Rutot, A., 6.
——, Cornwall.—Bullen, R. A., 2.
——, Ealing prehistoric.—Brown, J. A., 1.
——, earth &.—Meunier, S., 17.
——, Lansing (Kan.).—Holmes, W. H., 1; Pearson, K., 1; Shimek, B., 1; Upham, W., 1 & 4; Winchell, N. H., 3.
——, Mentone.—Richardson, R., 1.
——, Palæolithic. — Freckelton, T. W., 1; Reid, C., 3.
——, Quaternary. — Gaudry, A., 1 & 2; Gould, C. N., 1; Hepburn, D., 1; Kříž, M., 1; Lapouge, G. de, 2; Macnamara, N. C., 1; Salomon, W., 2; Schœtensack, O., 1; Walkhoff, O., 1.
Man, I. of.—Bonney, T. G., 4; Elsden, J. V., 2; Gill, E. L., 1; Lamplugh, G. W., 5; Lomas, J., 1.
Manaar, Gulf of (Ceylon, &c.).—Lomas, J., 6.
Mancalla.—Lucas, F. A., 7.
Manchester (Lancs).—Arber, E. A. N., 2; Pickstone, W., 2.
Manganese, Canada.—Ingall, E. D., 2.
—— dioxide, sedimentary rocks &.—Mackie, W., 3.
——, Nassau.—Bellinger, J., 1 & 2.
——, Taunus Mts. — Delkeskamp, R., 2.
——, United States.—Birkinbine, J., 2 Day, D. T., 1.
Mangilia.—Cossmann, M., 2.
Manhasset Formation, Long I. (N.Y.). —Fuller, M. L., 3.
Manitoba (Canada).—Ami, H. M., 8.
Manlius Formation, N.Y. — Schuchert, C., 3.
MANSEL-PLEYDELL, J. C. *See Obit.*, Woodward, H. B., 3.
Maps, Swedish geological, previous to 1850.—Lœnborg, S., 1.

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  ——. ——. Eastern Desert, $\frac{1}{500,000}$; Jebel Duwi, $\frac{1}{100,000}$; Barud & Maderaba, $\frac{1}{50,000}$; Jebel Zeit & Jemsa, $\frac{1}{250.000}$ & $\frac{1}{75,000}$. 190 .—Barron, T., 1.
  —— (Upper). Semna Cataract. $\frac{1}{4000}$. 1903.—Ball, J., 1.
  SUDAN. Kordofan. $\frac{1}{2,500,000}$. 1903.—Linck, G., 6.
  TUNISIA (Central). $\frac{1}{200,000}$. 1903.—Pervinquière, L., 1.
AFRICA (N.E.).
  ABYSSINIA (Southern). 1 inch = 70 miles. 1903.—Raisin, C. A., 1.

AFRICA (N.E.).

Aden, Gulf of. Sokotra. $\frac{1}{250,000}$. 1902. —Kossmat, F., 1.

AFRICA (South).

Cape Colony. Griqualand East, Matatiele. 1 inch=2 miles. 1903. —Schwarz, E. H. L., 1.

——. Kentani. 1 inch = 1¼ miles. 1903.—Rogers, A. W., 4.

Natal. 1 inch=15 miles. 1903.—Gray, C. W., 1.

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Gold Coast. Tarkwa. 1 inch = 4 miles, & 1 inch=1 mile. 1903.—Sawyer, A, R., 6.

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——. Rico Mts. 2 inches = ¾ mile. 1901.—Ransome, F. L., 1.

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——. Minussinsk & Achinsk, $\frac{1}{5{,}000{,}000}$; & Nerchinsk, $\frac{1}{5{,}000{,}000}$. 1903.—Bordeaux, A., 1.

——. Yenisei Govt. Lake Shira. $\frac{1}{168{,}000}$. 1903.—Tolmashev, J. P., 1; Pit, Gorbelka & Oderea Rivers. 1 inch=12 versts. 1902.—Ijitzki, N., 1 & 2.

Turkestan. $\frac{1}{12{,}600{,}000}$. 1903. — Levat, E. D., 1; Lake Balkash, $\frac{1}{4{,}200{,}000}$. 1903. —Levat, E. D., 1; Bukhara, $\frac{1}{3{,}000{,}000}$; & 1 inch=80 kilom. 1903.—Levat, E. D., 2; Province-of-Darvaz placers. $\frac{1}{500{,}000}$. 1903.—Levat, E. D., 2.

ASIA MINOR.

Anatolia. Cilicia. $\frac{1}{1{,}000{,}000}$. 1903.—Schaffer, F. X., 3.

——. Heraclea coalfield. 1 inch = 8 miles. 1903.—Simmersbach, B., 1.

AUSTRALASIA.

Australia (S.). Clinton rock-phosphates. 1 inch=8 chains. 1903.— Chewings, C., 1.

——. Northern Territory. Arltunga Goldfield. White Range gold-mines. 1 inch = 20 chains. 1902.—Brown, H. Y. L., 1.

—— (W.). Department of Mines. Map showing the goldfields & the distribution of useful minerals. 1 inch=75 miles. 1903.—King, H. S., 1.

—— (—). Murchison goldfield. Cue, &c., auriferous reefs. 1 inch=$\frac{1}{4}$ mile. 1903.—Campbell, W. D., 1.

Borneo, Central & part of South, $\frac{1}{750{,}000}$; Kapoewas R. basin, $\frac{1}{400{,}000}$. 1902. —Molengraaff, G. A. F., 1.

New South Wales. Department of Mines, 1902 (*various*). 1903.— Pittman, E. F., 1.

——. Cambewarra Mt., 1 inch = 1 mile; & Good Dog Mt., $\frac{3}{4}$ inch = $\frac{1}{4}$ mile. 1903.—Card, G. W., 3.

——. Kerosene-Shale Deposits (*various*). 1903. — Carne, J. E., 1.

New Zealand. Waihi goldfield (*no scale*). 1902.—Morgan, P. C., 1.

Queensland. Geological Survey. Geological sketch-map. 1 inch= 40 miles. 1902.—Dunstan, B., 3.

AUSTRALASIA.

Queensland. Anakie sapphire-field. 1 inch=2 miles & $\frac{7}{8}$ inch=$\frac{1}{2}$ mile. 1901.—Dunstan, B., 1.

——. Bentinck Is. 1 inch = about 10 miles. 1902.—Jackson, C. F. V., 3.

——. Biggenden District (*various*). 1902.—Ball, L. C., 2.

——. Brisbane & Burnett Rivers (*various*). 1901.—Jackson, C. F. V., 1.; Kangaroo Hills. 1 inch=2 miles. 1901.—Jackson, C. F. V., 1.

——. Brookville goldfield, showing Donnybrook & Erin's Hope Reefs. 1 inch=88 yards. 1903.—Cameron, W. E., 3.

——. Clermont goldfields. 1 inch=119 chains. 1902.—Dunstan, B., 2.

——. Horn I. 1 inch = 6 chains. 1902.—Jackson, C. F. V., 3.

——. Pioneer R. (*north of*). Mackay & Bowen districts. 1 inch=2 miles. 1903.—Cameron, W. E., 2.

——. Stanton Harcourt, &c. 1 inch = 20 chains (*& others*). 1901.—Ball, L. C., 1.

——. Yorkey's goldfield. 1 inch=20 chains, & Yorkey's & Marodian goldfields. 1 inch=1 mile. 1902.—Ball, L. C., 3.

—— (*Western portion*). 1 inch = 24 miles.—Jackson, C. F. V., 3.

Tasmania. Anderson's Creek iron-ore deposits. 1 inch=20 chains. 1903.—Twelvetrees, W. H., 4.

——. Preolenna coalfield. 1 inch=20 chains. 1903.—Twelvetrees, W. H., 2.

——. Zeehan, western silver-mine. 1 inch = 130 feet. 1902.—Waller, G. A., 1.

—— (N.W.). 1 inch = about 25 miles. 1903.—Gregory, J. W., 4.

Victoria. Gippsland. Anderson's Inlet. 1 inch = about 12 miles. 1903.—Kitson, A. E., 3.

——. Heathcote Valley & Colbinablin Range. 1 inch = 40 miles, & 1 inch = $\frac{1}{2}$ mile. 1903.—Gregory, J. W., 3; Yackandandah Creek & Nine Mile Creek. 1 inch=$8\frac{1}{2}$ miles. 1903.—Gregory, J. W., 3.

—— (South Central, including Melbourne). 1 inch=8 miles. 1902.—Kitson, A. E., 1.

Dutch East Indies.
Sumatra (Central). $\frac{1}{100,000}$. 1902.—Neeb, E. A., 1.

EUROPE.

Austria-Hungary. K.-k. geologische Reichsanstalt. Geologische Karte, $\frac{1}{75,000}$. S.W. Gruppe, nos. 9, 79, 88, 96, & Beilage, 137 *a*, $\frac{1}{25,000}$. 1903.—Tietze, E., 4.

——. ——. ——. S.W. Gruppe, no. 70. $\frac{1}{75,000}$. 1902.—Geyer, G., 1.

——. ——. ——. S.W. Gruppe, no. 123. $\frac{1}{75,000}$. 1902.—Kerner, F. von, 6.

EUROPE.

Austria-Hungary. K.-k. geologische Reichsanstalt. Dalmatia. Spalato (*no scale*). 1903.—Kerner, F. von, 4.

——. Bohemia. Kommittee für Landesdurchforschung. Section V. Prag. $\frac{1}{200,000}$. 1903.—Počta, P., 1.

——. Carinthia. Erzberg, near Hüttenberg. $\frac{1}{75,000}$. 1903.—Baumgærtel, B., 1.

——. Hungary. Alvincz. $\frac{1}{75,000}$. 1902.—Pálfy, M. von, 2.

——. ——. Budapest & Szeged. $\frac{1}{900,000}$. 1903.—Treitz, P., 2.

——. ——. Carpathians. $\frac{1}{1,500,000}$. 1903.—Uhlig, V., 4.

——. ——. Coal-deposits. $2\frac{1}{2}$ inches =69 miles. 1903.—Kalecsinszky, A. von, 2.

——. ——. Danube (Lower). $\frac{1}{115,000}$. 1903.—Schafarzik, F., 5.

——. ——. Kriván Mts. (Little). $\frac{1}{75,000}$. 1902.—Uhlig, V., 2.

——. ——. Mehádia & the Baths of Hercules. $\frac{1}{75,000}$. 1903.—Schafarzik, F., 5.

——. ——. Neutra district (S.). 1 inch=4 miles. 1903.—Horusitzky, H., 2.

——. ——. Palics Lake district. $\frac{1}{750.000}$. 1903.—Treitz, P., 3.

——. Moravia. Müglitz. $\frac{1}{75,000}$. 1903.—Kretschmer, F., 1.

——. Styria (U.). Walchen mines, near Œblarn. $\frac{1}{40,000}$. 1903.—Redlich, K. A., 1.

——. Tyrol. Monzoni & Upper Fassa Valley. $\frac{1}{25,000}$. 1903.—Gordon, M. M. O., 1.

Belgium. Campine coalfield. 1 inch =15·6 miles & 1 inch = 47 miles. 1903.—Harzé, E., 2; $\frac{1}{320,000}$. 1903. Kersten, J., 2; $\frac{1}{400,000}$. 1903.—Van Ertborn, O., 10; & Westphalia, $\frac{1}{160,000}$ & $\frac{1}{500,000}$. 1903.—Lohest, M., 1.

Denmark. Jutland moraines. 1 inch =9 kilom. 1903.—Ussing, N. V., 1.

France. Geological map. 1 inch=190 kilom. 1903.—Lapparent, A. de, 10.

——. Ain. Ambérieu, &c. $\frac{1}{80,000}$. 1902.—Boistel, A., 1.

——. Ariège. Saint-Girons. $\frac{1}{80,000}$. 1903.—Carez, L., 5; Ariège & Haute-Garonne. Boussens, St. Matory &c. $\frac{1}{200,000}$. 1903.—Carez, L., 4.

——. Basses-Pyrénées. Biarritz. $\frac{1}{10,000}$. 1903.—Carez, L., 6; Biarritz & Bidart. $\frac{1}{20,000}$. 1902.—Bertrand, L., 1.

——. Britanny. Crozon Penin. $\frac{1}{160,000}$. 1902.—Barrois, C., 5.

——. Burgundy. Blanzy & Le Creusot. $\frac{1}{50,000}$. 1902.—Delafond, F., 1.

EUROPE.

France. Pas-de-Calais coalfield. $\frac{1}{80,000}$. 1902.—Dobers, —, 1.

——. Service de la Carte géologique. Carte géologique détaillée de la France. $\frac{1}{80,000}$. Michel-Lévy, A. (Directeur), 1.

128 & 129. Ile d'Yeu & Palluau. 1902. Par F. Wallerant.

142. Niort. 1903. Par J. Welsch.

156. Aubusson. 1902. Par L. de Launay.

230. Toulouse. 1902. Par G. Vasseur, — Blayac, J. Savornin, & J. Répelin.

——. Vaucluse. Cucuron. $\frac{1}{20,000}$. 1903.—Savornin, J., 2.

——. *See also* England.

Germany.

Alsace-Lorraine. Altkirch. $\frac{1}{100,000}$. 1892.—Fœrster, B., 5.

——. Balbronn. $\frac{1}{25,000}$. 1896. — Steuer, A., 1.

——. Donon, The. $\frac{1}{50,000}$. 1896.—Andreæ, A., 3.

——. Geologische Specialkarte. $\frac{1}{25,000}$. Sheets 5, 6, 10, 11, 15–18, 22–29, 33, 34, 38–43, 52, 53, 75, 130, 132, 134. 1889–1902.—Benecke, E. W., 6.

——. Kron Valley. $\frac{1}{25,000}$. 1890.—Valentin, J., 1.

——. Rappoltsweiler. $\frac{1}{250,000}$. 1888. —Van Werveke, L., 5.

——. Saärbrucken coalfield. $\frac{1}{200,000}$. 1886.—Meyer, G., 1.

Baden. Geologische Specialkarte, $\frac{1}{25,000}$.

109. Furtwangen, 1903.—Schalch, F., 3.

119. Neustadt, 1903.—Schalch, F., 2.

——. Black Forest. $\frac{1}{100,000}$. 1902.——Steinmann, G., 2; Zweisimmer district. $\frac{1}{50,000}$. 1903.—Keidel, H., 1.

Bavaria. Donauwörth. 1 inch = 4 kilom. 1903.—Knebel, W. von, 2.

——. Obernzeil. $\frac{1}{100,000}$. 1903. — Launay, L. de, 3; Pfaffenreuth. $\frac{1}{146,000}$. 1903.—Launay, L. de, 3.

Hanover. Deistergebirge & Bad Neudorf. $\frac{1}{50,000}$. 1902.—Stille, H., 1.

——. Weser & Jade River-mouths. $\frac{1}{300,000}$. 1903.—Schucht, F., 1.

Hesse. Homberg on the Efze. $\frac{1}{50,000}$. 1903.—Schultz, W., 1.

——. Rhein-Hessen. Nahe & Wies River-junction. $\frac{1}{25,000}$. 1903. — Schopp, H., 1.

Nassau. Marburg a. Lahn & Herborn. $\frac{1}{200,000}$. 1903.—Walther, K., 1.

Prussia. Brandenburg. Fläming. $\frac{1}{100,000}$. 1903.—Linstow, O. von, 1.

——. Schleswig-Holstein. Kaiser-Wilhelm-Kanal. $\frac{1}{500,000}$. 1903.—Zeise, O., 1.

EUROPE.

Prussia. Schleswig-Holstein, Mecklenburg, &c. $\frac{1}{500,000}$. 1903.—Frech, F., 2.

Saxony. Sohland on the Spree. $\frac{1}{25,000}$. 1903.—Beck, R., 1.

Silesia. Riesengebirge. Schmiedeberg. $\frac{1}{25,000}$. 1903.—Berg, G., 1.

Westphalia. Eggegebirge. $\frac{1}{50,000}$. 1903.—Stille, H., 2.

——. *See also* Belgium.

Würtemberg. Heid. $\frac{1}{2,500}$. 1903. —Endriss, K., 1.

Great Britain and Ireland.

British Isles. 1 inch = 120 miles. 1903.—Marr, J. E., 1.

England and France. Chalk-occurence in. 1 inch = 24 miles. 1903. —Jukes-Browne, A. J., 6.

——. Triassic pebbles. 1903. — Shrubsole, O. A., 1.

England and Wales. Bedfordshire. Leighton Buzzard. 1 inch = 2 miles. 1903.—Lamplugh, G. W., 7.

——. Cornwall. Cligga Head. 1½ inches = 1 mile. 1903. — Scrivenor, J. B., 1.

——. ——. Tintagel & Davidstow District. 1 inch = 1 mile. 1903. —Parkinson, J., 1.

——. —— (W.). 1 inch = 4 miles. 1903.—Hill, J. B., 1.

——. —— & Devon. 1 inch = 12 miles. 1903.—Collins, J. H., 1.

——. Derbyshire. Buxton. District round Victoria Quarry. 6 inches = 1 mile. 1903.—Dawkins, W. B., 1.

——. Devon. Cenomanian Sea. 1903. —Jukes-Browne, A. J., 4; Teign Valley. 1 inch = 2 miles. 1903. —Lowe, H. J., 1.

——. Dorset. Creechbarrow. 4 inches = 1 mile. 1902.—Hudleston, W. H., 1.

——. Geological Survey. 1-inch geological map, n. s. Sheet 156. Leicester. 1903.—Fox-Strangways, C., 2.

——. ——. ——. N. s. 232. Abergavenny (Solid). 1902. — Dakyns, J. R., 3.

——. ——. ——. N. s. 248. Pontypridd (Solid). 1902.—Strahan, A., 5.

——. ——. ——. N. s. 249. Newport (Solid). 1902. — Strahan, A., 4.

——. ——. ——. N. s. 298. Salisbury (Drift). 1902.—Reid, C., 4.

——. ——. ——. N. s. 317. Chichester. 1903.—Reid, C., 5.

——. ——. Staffordshire. Cheadle coalfield. 1 inch = 1 mile. 1903. —Barrow, G., 1.

——. ——. Man, I. of. 1 inch = 4 miles. 1903.—Lamplugh, G. W., 5.

EUROPE.

GREAT BRITAIN AND IRELAND.

ENGLAND AND WALES. Glamorganshire. South Trough of Coalfield. 1 inch=1 mile. 1903.—Jordan, H. K., 1.

——. Gloucestershire. Cowley District. 1 inch = 4 miles. 1903.—Richardson, L., 1.

——. Hertfordshire. 1 inch = 4 miles. 1903.—Hopkinson, J., 2; Royston. 1 inch=2 miles. 1903.—Woodward, H. B., 2.

——. Leicestershire. Charnwood Forest. 1 inch=1·183 miles. 1903.—Watts, W. W., 1.

——. Norfolk. 1 inch=9 miles. 1903.—Elsden, J. V., 5.

——. Staffordshire. Congleton Edge. 4 inches = 1 mile. 1903. —Hind, W., 6.

—— Suffolk. Ipswich, &c. 1 inch = 4 miles. 1903.—Jukes-Browne, A. J., 3.

——. Wiltshire. Vale of Wardour. $\frac{2}{5}$ inch=1 mile. 1903.—Andrews, W. R., 1.

——. Yorkshire. Cleveland glaciers and glacier-lakes. 1 inch=8 miles. 1903. — Clark, J. E., 1; (East Riding). 1 inch=8 miles. 1903.—Robinson, J. F., 1; 1903. 1 inch= 8 miles.—Sheppard, T., 6; Harrogate, Skipton, &c. 1 inch=2 miles. 1903.—Smith, W. G., 1; Yorkshire & Durham. Teesdale. The Great Whin Sill. 1903. — I'Anson, J. C., 1.

IRELAND. Geological Survey. 1-inch map, no. 112. Dublin (Drift). 1902. —Egan, F. W., 1.

——. Dublin Co. Montpelier Hill. 4 inches=1 mile. 1903.—Wright, W. B., 1.

——. Wicklow. Donard. 1 inch= 1 mile. 1903.—Seymour, H. J., 2.

SCOTLAND. Lothian coal and oil-shalefields. 1 inch=2 miles. 1902. —Cadell, H. M., 1.

——. Rum. 1 inch=1 mile. 1903. —Harker, A., 2.

——. Tiree. 6 inches = 1 mile & 12 inches=1 mile. 1903.—Coomáraswámy, A. K., 4.

GREECE. Eubœa. $\frac{1}{600,000}$. 1903. — Deprat, J., 1.

ITALY. Basilicata. Agri, Mercure & Noce River-basins. $\frac{1}{100,000}$. 1898.—Lorenzo, G. de, 2; Monte Volture. $\frac{1}{100,000}$. 1900.—Lorenzo, G. de, 3.

——. Campania. Mignano. $\frac{1}{100,000}$. 1902.—Sabitini, V., 1; Phlegræan Fields, Astroni Crater. $\frac{1}{25,000}$. 1902. —Lorenzo, G. de, 6.

——. Lombardy. Lake Lugano District. $\frac{1}{50,000}$. 1903. — Bistram, A. von, 2.

EUROPE.

ITALY. Tuscany. Mte. Amiata. $\frac{1}{100,000}$. 1903.—Verri, A., 4; Carrara. 1 inch = 2 miles. 1903. — Elsden, J. V., 9; Siena district. $\frac{1}{100,000}$. 1903.—Verri, A., 3.

——. Venetia. Agorda district. 1 inch =2 miles. 1903. — Keyserling, H. von, 1.

NORWAY. Dunderland Iron-ore Deposits, 1 inch=5 km.; Ofotenfjord ditto, 1 inch = 13 km. 1903.—Vogt, J. H. L., 2.

RUSSIA. Kharkov. Donetz R. (Upper). 1 inch = 14 miles. 1903.—Borisiak, A., 1.

——. Perm. Tagil, Bissersk, Goroblagodat, Kosvinsky (*various scales*). 1903.—Duparc, L., 2.

——. Poland. Warsaw & Kalisz Railway. 1 inch=20 versts. 1902. Levinski, J., 1.

——. Ural Mts. & northern and southern sea-deposits. $\frac{1}{25,000,000}$. 1903. Bertrand, M., 1.

——. Volhynia. Kovel District terminal moraines. 9 inches = 80 miles. 1902.—Tutkovski, I., 1.

SPAIN. $\frac{1}{2,000,000}$. 1864.—Maestre, A., 1.

——. Léon. Sabero coalfield. $\frac{1}{20,000}$. 1903.—Mallada, L., 1.

SWEDEN. Geologiska Undersökning. Ser. Aa. 116. Skara. $\frac{1}{50,000}$. 1903. —Munthe, H., 1.

——. ——. —— 118. Loka. $\frac{1}{50,000}$. 1903.—Blomberg, A., 1.

——. ——. —— 122. Kristinehamn. $\frac{1}{50,000}$. 1903.—Blomberg, A., 2.

——. ——. Ser. Ac. 7. Œland I., Ottenby. $\frac{1}{100,000}$ & $\frac{1}{500,000}$. 1902. — Munthe, H., 2.

——. ——. Ser. C. Distribution of fossil hazels. $\frac{1}{1,000,000}$. 1902. — Andersson, G., 1.

——. Norrbotten. Iron-fields (*various*). 1903. Launay, L. de, 4.

——. ——. Tornea L. $\frac{1}{200,000}$. 1903. —Holmquist, P. J., 1.

——. ——. —— & Sjangeli. 1 inch= 10 kilom. 1903.—Holmquist, P. J., 2,

——. Norrland. Angerman Valley. $5\frac{1}{2}$ inches = 125 miles. 1902.—Ahlenius, K., 1.

——. Scania. Sösdala. $\frac{1}{50,000}$. 1903. —Kjellen, R., 3.

SWITZERLAND. Berne. Interlaken district. $\frac{1}{250,000}$. 1903. — Douvillé, H., 10.

——. Grisons. Arosa district. $\frac{1}{60,000}$. 1903.—Hœk, H., 1.

——. Linth & Reuss Glaciers. $\frac{1}{700,000}$. 1903.—Penck, A., 1.

——. Neuchâtel. Areusegorge. $\frac{1}{15,000}$. 1903.—Schardt, H., 5.

TURKEY & SERVIA. Noce Valley (Albania) to New Orsova (Servia). $\frac{1}{500,000}$. 1903.—Vinassa de Regny, P., 2.

Marble, Carrara.—Elsden, J. V., 9.
——, flow of, & pressure.—Rinne, F., 2.
——, Greece, &c.—Bock, J., 1.
——, Ireland.—Elsden, J. V., 6.
——, Tiree, &c.—Coomáraswámy, A. K., 4.
——, Vermont.—Dale, T. N., 1.
——, Washington (U.S.A.).—Shedd, S., 1.
Marburg-a.-d.-Lahn (Nassau).—Walther, K., 1.
Marburg (Styria).—Dreger, J., 2
Marcasite.—Meunier, S., 4.
Marcellus Shale, New York.—Clarke, J. M., 1; Talbot, M., 1; Ohio.—Claypole, E. W., 1.
Marches (Italy).—Mariani, M., 1; Moderni, P., 1.
Marginella.—Cossmann, M., 2.
Marginulina.—Schick, T., 1.
Marine fauna, Boulder-Clay.—Wright, J., 1–3.
Markirch (Alsace-Lorraine).—Bruhns, W., 1.
Marl, Britanny.—Lechartier, G., 1.
——, Hungarian cement. — Koch, A., 2.
—— -lœss, Wabash Valley. — Fuller, M. L., 4.
——, Michigan.—Russell, I. C., 2.
——, nitrogen, &c. in.—Miller, N. H. J., 1.
—— -Slate, Northumberland & Durham. —Lebour, G. A., 1.
——, U. S. Cretaceous. — Parsons, A. L., 1.
Marne (France).—Cooreman, T., 1.
Marodian goldfield (Queensl.). — Ball, L. C., 3.
Marsh Collection, Peabody Museum. —Wortman, J. L., 1.
Marske-by-the-Sea (Yorks.). — Seward, A. C., 1.
Martinique (W.I.). — Anderson, T., 1–5; Colonna, E., 1; Curtis, G. C., 1 & 3; Gautier, A., 1; Gentil, L., 1; Gillot, H., 1; Giraud, C., 1; Giraud, J., 1; Griffiths, A. B., 1; Hœrnes, R., 6; Hovey, C. O., 1, 2, 4, & 5; Kewitsch, G., 1; Lacroix, A., 1–4, 7–9, 12; Lobley, J. L., 1; Meunier, S., 14; Sapper, K., 11; Spencer, J. W.; 2 & 4; Stuebel, A., 2; Supan, A., 1; Verrill, A. E., 3; *see also* Pelé, Mt., &c.
Maruéjols (Gard).—Pellat, E., 1.
Mary R. (Queensl.).—Jackson, C. F. V., 1.
Maryland (U.S.A.).—Clark, W. B., 1–4; Schuchert, C., 4 & 6; White, D., 3.
Maryport (Cumberland).—Arber, E. A. N., 3
Mas-d'Azil, Le (Ariège).—Piette, É., 1.
Maspino (Tuscany).—Bosco, C., 1.
Massachusetts (U.S.A.).—Hobbs, W. H., 6; Mills, F. S., 1; Tarr, R. S., 1; Taylor, F. B., 1.
Mastodon.—Andrews, C. W., 4; Blanckenhorn, M., 1; Dawkins, W. B., 1 Lydekker, R., 4; Schottler, W., 1; Venukov, P. I., 1.
Matabeleland (S. Africa).—Carey, G. R., 1.
Matatiele (Cape Colony).—Schwarz, E. H. L., 1.
Matheria.—Whiteaves, J. E., 1.
Matru, Mersa (Egypt). — Ball, J., 2; Pachundaki, D. E., 1.
Matyoscor.—Ameghino, F., 2.
Maurienne, Hte. (Savoy).—Girardin, P., 1.
May-sur-Orne (Calvados). — Shrubsole, O. A., 1.
Mazama, Mt. (Or.).—Diller, J. S., 3.
Mediterranean, French shore-lines.—Depéret, C., 2.
Medlicottia.—Smith, J. P., 1.
Mëdobori massif (Bessarabia).—Michalski, A., 1.
Medusæ, Devonian.—Kinkelin, F., 3.
Meekoceras.—Airaghi, C., 1.
Megablattina.—Sellards, E. H., 1.
Megaladapis.—Lorenz, L. von, 1.
Megalohyrax.—Andrews, C. W., 3.
Megalosaurus.—Nopčsa, F. von, Jun., 2.
Megalotriton.—Stefano, G. de, 1.
Megalurus.—Sauvage, H. E., 2.
Megambonia.—Weller, S., 2.
Meina (Piedmont).—Taramelli, T.
Meiningen (Germany).—Wuest, E., 5.
Melania.—Pavlov, P. S., 2.
—— -limestone, Alsace-Lorraine.—Andreæ, A., 1.
Melanite.—Colomba, L., 2; Franchi, S., 3; Moldenhauer, F., 1.
Melanopsis.—Fœrster, B., 5; Hudleston, W. H., 1; Pavlov, P. S., 2.
Melanosporites.—Pampaloni, L., 1.
Melanterite.—Schaller, W. T., 1.
Melaphyre, Bohemia. — Hinterlechner, K., 1.
—— 'contraction-cylinder.'—Klemm, G., 1.
——, Cornon.—Ippen, J. A., 2.
——, Hesse.—Chelius, C., 1; Kueppers, E., 1.
——, Styria.—Fabian, K., 1.
——, Venetia.—Keyserling, H. von, 1.
Melbourne (Vict.).—Chapman, F., 1 & 2.
Melongena.—Cossmann, M., 2.
Memleben-a.-d.-Unstrut (Thuringia).—Wuest, E., 1.
Mendelgebirge (Tyrol).—Blaas, J., 1.
Mendoza (Argentina). — Bodenbender, G., 1, 2.
Menin (Flanders).—Stainier, X., 4.
Mentone (Alpes-Maritimes).—Gaudry A., 1; Richardson, R., 1.
Mentor Beds, Kansas.—Jones, A. W., 1.
Mercure R. (Basilicata).—Lorenzo, G. de, 2.
Mercury. *See* Quicksilver.
Meris Valley (Piedmont).—Roccati, A., 1.
Merseburg (Germany).—Schuetze, F., 1.

Mersey R.—Nares, Sir G. S., 1.
Merstham (Surrey).—Holmes, W. M., 1.
Mesabi (Minn.).—Leith, C. K., 1.
Mesalia.—Bistram, A. von, 1.
Mesorhytis.—Cossmann, M., 1.
Mesosaurus.—Vaillant, L., 1.
Messina (Sicily).—Seguenza, L., 1–3.
Metacheiromys.—Wortman, J. L., 1.
Metalliferous deposits, origin of.—Launay, L. de, 1.
Metamorphic rocks, Ireland.—Cole, G. A. J., 1; Liguria.—Franchi, S., 1; Thuringia.—Zimmermann, E., 1; Victoria (Austral.).—Gregory, J. W., 2.
Metamorphism, Alpine graphite-deposits &.—Weinschenk, E., 7.
——, contact-.—Kemp, J. F., 2; Lindgren, W., 2.
——, Dunderland iron-deposits.—Vogt, J. H. L., 2.
——, dynamic.—Seymour, H. J., 2.
——, hydrothermal.—Hunt, A. R., 7.
——, Loch-Lomond District.—Cunningham-Craig, E. H., 1.
——, regional.—Hornung, F., 1.
——, rock-.—McMahon, C. A., 1 & 3.
——. *See also* Contact.
Metaplasia.—Weller, S., 2.
Meteoric dust, New South Wales.—Liversidge, A., 1.
—— iron.—Cohen, E., 1.
Meteorites, Alabama.—Merrill, G. P., 1.
——, Antrim.—Gurney, H. P., 1.
——, Berlin Univ. Mus.—Klein, C., 2.
——, Colorado.—Preston, H. L., 1.
——, Finland.—Borgstrœm, L. H., 1.
——, free phosphorus in.—Farrington, O. C., 1.
——, Kansas.—Merrill, G. P., 2.
——, Kentucky.—Merrill, G. P., 4; Miller, A. M., 1; Ward, H. A., 4.
——, Maine.—Ward, H. A., 5.
——, Mexico.—Tassin, W., 1; Ward, H. A., 2.
——, Michigan.—Preston, H. L., 2.
——, Minnesota & Pennsylvania.—Ward, H. A., 3.
——, Missouri.—Ward, H. A., 1.
——, Nebraska.—Barbour, E. H., 1.
——, New South Wales.—Card, G. W., 1; Liversidge, A., 2.
——, occurrence of.—Cohen, E., 3 & 4.
——, Sudan.—Cohen, E., 2.
——, Upsala Min. Inst.—Hœgbom, A. G., 1.
——, Vienna Nat. Hist. Mus.—Berwerth, F., 2.
——, Virginia.—Campbell, H. D., 1.
——. *See also* Iron, meteoric.
Metopotoxus.—Scott, W. B., 1.
Metoptoma.—Matthew, G. F., 1.
Metula.—Casey, T. L., 1.
Meudon (Seine-et-Oise).—Ramond, G., 1.
Meuse R. (France).—Bois, P., 1.
Mexico.—Aguilera, J. G., 1; Bœse, E., 1; Caballero, G. de J., 1; Collins, H. F., 1; Felix, J., 5; Halse, E., 1 & 2; Hill, R. T., 1; Keyes, C. R., 5; Kunz, G. F., 2; Lakes, A., 7 & 8; Ludlow, E., 1; Malcomson, J. W., 1; Manzano. J. P., 1; Ordóñez, E., 1–3; Rangel, M. F., 1; Richards, E. H., 1; Villarello, J. de D., 1; Weed, W. H., 2 & 3; White, W., Jun., 1; Witherbee, T. F., 1.
Miadesmia.—Benson, M., 1.
Mica, ancient use of.—Miers, H. A., 3.
——, Brazil.—Scott, H. K., 1.
——, Canada.—Osann, A., 1; Pratt, J. H., 6.
——, India.—Holland, T. H., 1; Primrose, A., 1; Wetherell, E. W., 1.
——, Striegau.—Sachs, A., 1.
——, United States.—Pratt, J. H., 6.
——. *See also* Muscovite, &c.
Mica-schists, plant-remains in.—Dal Piaz, G., 1 & 2.
Michigan (U.S.A.).—Jackson, J. F., 1; Lane, A. C., 2; Russell, I. C., 2.
Michipicoten Bay (Ont.).—Coleman, A. P., 1 & 4.
Micraster.—Airaghi, C., 2; Rowe, A. W., 1.
Microclines, green, pleochroism of.—Rinne, F., 1.
Microdiscus.—Etheridge, R., Fil., 1; Weller, S., 2.
Microdon.—Sauvage, H. E., 2.
Microdrilla.—Casey, T. L., 1.
Micromelania.—Pavlov, P. S., 2.
Microscope-sections, scratched minerals.—Jevons, H. S., 1.
Microsyops.—Wortman, J. L., 1.
Microthyrites.—Pampaloni, L., 1.
Middlesex.—Brown, J. A., 1.
Midlands (England).—Shrubsole, O. A., 1.
Midlothian (Scotland).—Cadell, H. M., 2; *see also* Edinburgh, &c.
Mignano (Campania).—Sabatini, V., 1.
Milleporidium.—Steinmann, G., 4.
Milleroceros.—Smith, J. P., 1.
Millstone Grit, Grassington Moor.—Dakyns, J. R., 2.
Mimetite.—Bowman, H. L., 1.
Minden (Westphalia).—Wiese, T., 1.
Mine-flooding, Cuesmes.—Kersten, J., 1.
Mineral crystallization, granite.—Hunt, A. R., 4.
—— industry, progress of, Tasmania.—Twelvetrees, W. H., 1.
—— ——, subject-list of works on.—Dalton, C. N., 1.
—— intercrystallization.—Delkeskamp, R., 1; Muegge, O., 1.
—— resources, England, United States, &c.; *see* Antimony, Iron, &c.
—— veins, finding by electricity.—Dickinson, J., 1.
—— water, arsenic in.—Gautier, A., 2.
—— waters, Ems.—Fresenius, H., 1; France.—Garrigou, F., 1; Moissan, H., 1; Moureu, C., 1; Indiana.—Blatchley, W. S., 1; Hessler, R., 1;

Madagascar. — Arnaud, A., 1; Rumania.—Nicolau, T., 1; United States. — Day, D. T., 1; Yenisei Gov. — Ludwig, F., 1.
Mineralogical Institute, Upsala.—Hœgbom, A. G., 1; *see also* Museums, &c.
—— projection, lantern.—Brauns, R., 2.
—— textbooks.—Mercalli, G., 1; Miers, H. A., 1.
Mineralogy, 1901.—Morley, H. F., 1.
——, American (N.).—Weeks, F. B., 2.
——, applied.—Charpentier, A., 1.
——, Scottish.—Heddle, M. F., 1.
Minerals, artificial production of. — Kœnig, G. A., 1; Thugutt, St. I., 1; Wright, F. E., 1.
——, Binn Valley.—Baumhauer, H., 2; Lewis, W. J., 1; Solly, R. H., 1 & 2.
——, Canada.—Hoffmann, G. C., 1.
——, contact-.—Fromme, J., 1.
——, etching of.—Fuller, M. L., 2.
——, Ireland.—Seymour, H. J., 1 & 3.
——, Madagascar.—Lacroix, A., 11.
——, melting-point of.—Dœlter, C., 2; Lenarčič, J., 1 & 2.
——, molecular volume and chemical composition of crystallographically similar.—Prior, G. T., 1.
——, Newfoundland.—Howley, J. P., 1.
——, new names of.—Spencer, L. J., 2.
——, New South Wales.—Card, G. W., 1.
——, on old buried coins. — Rogers, A. F., 2.
——, orientation of.—Souza-Brandão, V. de, 1.
——, place-names &.—Foster, Sir C. Le N., 3.
——, rock-forming.—Joly, J., 5.
——, Scotland.—Heddle, M. F., 1.
——, specific gravity of.—Behr, J., 1.
——, Tasmania.—Pettard, W. F., 1.
Mines, Great Britain.—Atkinson, J. B., 1; &c.—Foster, Sir C. Le N., 1 & 2.
——. India.—Stonier, G. A., 1 & 2.
——, Indiana.—Epperson, J., 1.
——, Nova Scotia.—Gilpin, E., Jun., 2.
——, Peru. — Balta, J., 1; Larrabure, E., 1.
——, Transvaal.—Weldon, H., 1 & 2.
Minette.—Linck, G., 1.
Mineville (N.Y.).—Reiss, H., 1.
Mining engineering.—Charlton, A. G., 1.
——, geology and.—Lapworth, C., 2.
——, progress of civilization &.—Blake, W. P., 4.
—— terms, Spanish-American.—Dwight, A. S., 1.
Minnesota (U.S.A.). — Hall, C. W., 1; Leith, C. K., 1; Winchell, N. H., 2.
Mino-Owari (Japan).—Omori, F., 1.
Minsterworth (Gloucester). — Richardson, L., 5.
Minussinsk (Siberia).—Bordeaux, A., 1.
Miocene, Galicia.—Friedberg, G., 1.
——, Loire Basin.—Dollfus, G. F., 6.
——, Seine-et-Oise.—Grossouvre, A. de, 1.
Miocene, Switzerland.—Rollier, L., 3; Stehlin, H. G., 1.
——. *See also* Tertiary.
Miquelon I. (Newfoundland). — Breton, — Le, 1.
Misburg (Hanover).—Wollemann, A., 3.
Mispickel.—Buecking, H., 1; Kerforne, F., 2.
Mission Range (Mont.).—Elrod, M. J., 1.
Mississippi (U.S.A.). — Dall, W. H., 2; Eastman, C. R., 1; Hilgard, E. W., 1; Keyes, C. R., 2; Smith, E. A., 2.
Missouri (U.S.A.).—Bain, H. F., 1 & 2; Eldridge, G. H., 1; Hedburg, E., 1; Keyes, C. R., 1.
'Mistpoeffers.'—Alippi, T., 1; Botti, U., 1.
Mitchell River (Gippsland). — Dennant, J., 2.
Mitta Mitta (Victoria).—Jenkins, H. C., 1.
Mittelgebirge (Bohemia).—Becke, F., 1; Cornu, F., 1.
Mius R. (S. Russia).—Sokolov, N., 1.
Mixodectidæ.—Osborn, H. F., 3.
Mochlodon.—Nopčsa, F. von, Jun., 1.
Modiola. — Etheridge, R., Fil., 2; Maurer, F., 1; Shattuck, G. B., 1.
Modiolopsis.—Weller, S., 2.
Modiomorphica.—Maurer, F., 1.
Mœritherium.—Lydekker, R., 4.
Moffat Ry. (Colo.).—Lakes, A., 15.
Mohave Desert (Cal.). — Campbell, M. R., 1.
Mojada, Sierra (Mexico).—Malcolmson, J. W., 1.
Molasse, Swiss Tertiary.—Renevier, E., 2; Stehlin, H. G., 1.
Moldavia (Rumania). — Butureanŭ, V. C., 1; Simionescŭ, J. T., 1–3.
Mollusca, Colorado - Desert fossil. — Stearns, R. E. C., 1.
——, erosion by.—Lakes, A., 12.
Molokai I. (Hawaii).—Lindgren, W., 4.
Molybdenum.—Pratt, J. H., 3.
Monachus.—Ugolini, R., 1–3.
Monazite.—Day, D. T., 1; Hussak, E., 2; Mingaye, J. C. H., 2; Pettard, W. F., 1; Pratt, J. H., 11.
—— sand.—Barker, G. F., 1.
Mondovi (Piedmont).—Sacco, F., 1.
Monetite.—Schulten, A. de, 1.
Mongolia (Asia).—Lyman, B. S., 2.
Monilites.—Pampaloni, L., 1.
Monkeys, Quaternary. — Abel, O., 2; Lorenz, L. von, 1.
——, Tertiary. — Osborn, H. F., 3; Schlosser, M., 1; Wortman, J. L., 1.
Monmouthshire. — Dakyns, J. R., 3; Moore, H. C., 1; Richardson, L., 2; Strahan, A., 4; Vaughan, A., 1.
Monoclonius.—Osborn, H. F., 4.
Monograptus.—Hall, T. S., 2.
Monophyllites.—Schellwien, E., 1.
Monopleura.—Franchis, F. de, 1.
Monotrypa.—Papp, C., 1; Weller, S., 2.
Mons (Gard).—Pellat, E., 1.
—— (Hainault).—Leriche, M., 2.

Montana (U.S.A.). — Elrod, M. J., 1; Hatcher, J. B., 1; Rowe, J. P., 1 & 2; Stanton, T. W., 2; Stobbs, L. S., 1; Weed, W. H., 1 & 7; Willis, B., 1.
Montanite.—Mingaye, J. C. H., 1.
Monte Cristo, Mt. (Wash.). — Spurr, J. E., 1.
Montenegro. — Antula, J., ; Manasse, E., 1; Martelli, A., 2; Vinassa de Regny, P., 1; Zujović, J. M., 1.
Monteregian Hills (Quebec). — Adams, F. D., 3.
Monterey (Mex.).—White, W., Jun., 1.
Montian.—Cornet, J., 4; Grossouvre, A. de, 3; Rutot, A., 2; *see also* Cretaceous.
Montlivaltia.—Felix, J., 2; Osasco, E., 1.
Montmaurin (Haute-Garonne).—Boule, M., 1; Chartron, C., 1.
Montorfano (Piedmont).—Tacconi, E., 1.
Montpelier Hill (Co. Dublin).—Wright, W. B., 1.
Montreal (Ottawa).—Adams, F. D., 3; Evans, N. N.
Montroydite.—Moses, A. J., 1.
Montserrat (W. I.).—Sapper, K., 6.
Monzie (Perth).—Kerr, —. —, 1.
Monzoni (Tyrol).—Gordon, M. M. O., 1; Ippen, J. A., 3, 4, 7; Melczer, G., 1; Romberg, J., 2.
Monzonite, Tyrol. — Ippen, J. A., 1; Romberg, J.
Moon, earth &.—Borredon, G., 2 & 5.
Moraines, Alsace-Lorraine.—Van Werveke, L., 14.
——, Bavaria.—Regelmann, C., 1.
——, Denmark.—Ussing, N. V., 1.
——, Inn Valley.—Hess, H., 1.
——, Kingston (N.Z.).—Marshall, P., 1.
——, New York State.—Comstock, F. M., 2.
——, origin of.—Crosby, W. O., 1.
——, Scania.—Holst, N. O., .
——, Volhynia.—Tutkovski, I., 1.
——. *See also* Eskers, &c.
Moravia.—Bock, H., 1; Felix, J., 1; Fuchs, T., 4; Kretschmer, F., 1; Kříz, M., 1; Tietze, E., 1; Vetters, H., 1.
Moravicza (Hungary). — Weinschenk, E., 3.
Moray Firth (Scotland).—Mackie, W., 3 & 6.
Moreton-in-the Marsh (Gloucester). — Reade, T. M., 3.
Moro, El (Colo.).—Hill, R. T., 1.
Morocco (Africa).—Fischer, T., 1.
Morphippus.—Ameghino, F., 4.
MORSE, E. S. *See* Schuchert, C., 1.
Morter I. (Dalmatia).—Schubert, R. J., 1.
Mosasaurs, origin of.—Nopčsa, F. von, Jun., 8.
Moselle R. (Alsace-Lorraine). — Van Werveke, L., 2.
Mosor (Dalmatia).—Kerner, F. von, 5.
Mossel Bay (Cape Colony).—Rogers, A. W., 2.
Moulineaux (Seine-Infre.).—Fortin, R., 1.
Mountain-chains, circular form of. — Lake, P., 1.
Mountains, direction of.—Issel, A., 4.
——, Great-Basin Region (Nevada, &c.). —Davis, W. M., 4.
——, Norrbotten.—Holmquist, P. J., 1.
——, Norway.—Reusch, H., 1 & 2.
——, origin of. — Avebury, Lord, 1; Fleischer, A., 1; Reade, T. M., 2.
——. *See also* Orography.
Mouretia.—Douvillé, H., 7.
Mourne Mts. (Co. Down).—Seymour, H. J., 3.
Mouthe, La, Cave (Dordogne). — Moissan, H., 2; Rivière, E., 1.
Mozambique (E. Africa).—Choffat, P., 2.
Mücke (Hesse).—Klemm, G., 2.
Muckross Head (Donegal).—Woodward, H., 8.
Mud-volcanoes, California, India, &c.—Lakes, A., 13.
Mudstones, Eodevonian.—Ami, H. M., 3.
Muensteroceras.—Smith, J. P., 1.
Müglitz (Moravia).—Kretschmer, F., 1.
Mugnone R. (Tuscany).—Dainelli, G., 1.
Mühlhausen (Alsace-Lorraine). — Fœrster, B., 1 & 5.
Münchberg (Bavaria).—Duell, E., 1.
Munich (Bavaria).—Pfaff, F. W., 2.
MUNIER-CHALMAS, —. *See Obit.*, Gaudry, A., 3.
Muotta Valley (Schwytz).—Otter, J.
Murchison Goldfield (W. Austral.).—Campbell, W. D., 1.
Murchisonia.—Walther, K., 1.
Murex.—Cossmann, M., 2.
Muschelkalk. *See* Trias.
Muscovite.—Ivanov, L. L., 1.
Müsen (Westphalia).—Bruecher, M., 1.
Museum, American, of Natural History, New York.—Hovey, E. O., 2.
——, Basel, Nat. Hist.—Greppin, E., 1.
——, Berlin University.—Klein, C., 2.
——, Bohemian Nat. Hist. — Fritsch, A., 1.
——, British (Nat. Hist.).—Prior, G. T., 3.
——, Caen Nat. Hist.—Bigot, A., 7.
——, CARNEGIE.—Hatcher, J. B., 3.
——, Frankfort-on-Main Nat. Hist. Soc. —Kinkelin, F., 2.
——, Geol. Soc. type-specimens. — Blake, J. F., 1.
——, GOSSELET, Inst. des Sci. nat. Lille. —Gosselet, J., 7.
——, HORNIMAN.—Salter, A. E., 2.
——, Hull.—Sheppard, T., 3.
——, Hungarian Geol. Inst. — Pethœ, J., 1.
——, Lausanne Nat. Hist.—Renevier, E., 1.
——, Leicester.—Biggs, J. T., 1.
——, Olten.—Stingelin, T., 1.
——, Oxford University.—Healey, M., 1.
——, Paris Nat. Hist.—Meunier, S., 5.
——, PEABODY, Yale.—Eaton, G. F., 1 & 2; MARSH Collection.—Wortman, J. L., 1.

Museum of Practical Geology.—Teall, J. J. H., 3 & 4.
——, St. Petersburg Zool.—Woodward, A. S., 9.
——, SEDGWICK, Cambridge.—Reed, F. R. C., 4; *see also* WOODWARDIAN.
——, U.S. National.—Schuchert, C., 2.
——, Upsala University.—Hœgbom, A. G., 1.
——, Victorian National, Melbourne.—Chapman, F., 1.
——, Vienna Nat. Hist.—Berwerth, F., 2.
——, WOODWARDIAN.—Kurtz, F., 1; Reed, F. R. C., 1, 2, 4; *see also* SEDGWICK.
Myalina.—Kayser, E., 1; Maurer, F., 1; Whitfield, R. P., 1.
Mycethoseris.—Osasco, E., 1.
Mylagauli, Tertiary.—Matthew, W. D., 4.
Mylagaulodon.—Sinclair, W. J., 1.
Mylodon.—Cordovez, M., 1.
Myoconcha.—Burckhardt, C., 1.
Myophoria.—Maurer, F., 1; Walther, K., 1.
Myrica.—Engelhardt, H., 1; Knowlton, F. H., 1.
Mysidioptera.—Bittner, A., 1.
Mysore (India).—Jayaram, B., 1; Primrose, A., 1; Sambasiva Iyer, V. S., 1 & 2; Slater, H. K., 1; Smeeth, W. F., 1; Wetherell, E. W., 1–4.
Mytilarca.—Weller, S., 2.
Mytilus.—Etheridge, R., Fil., 2.

Nagelfluh, Salzburg.—Crammer, H., 1.
Nagy-Károly (Hungary).—Pethœ, J., 2.
Nagy-Surány (Hungary).—Horusitzky, H., 1.
Names of places, minerals &.—Foster, Sir C. Le N., 3.
Namur (Belgium).—Destinez, P., 1; Simoëns, G., 1; Van den Broeck, E., 15.
Nannites.—Airaghi, C., 1.
Naples, Bay of (Italy).—Guenther, R. T., 1; Lorenzo, G. de, 1.
Narni (Umbria).—Lotti, B., 1.
Nassa.—Cossmann, M., 2.
Nassau (Germany).—Bellinger, J., 1; Hintz, E., 1; Kaiser, E., 1; Maurer, F., 1; *see also* Cassel & Hesse.
Natal (S. Africa).—Gray, C. W., 1.
Nathorstella.—Kayser, E., 1.
Natica.—Dacqué, E., 1.
Natrolite.—Pettard, W. F., 1.
Natron, Wadi (Lr. Egypt).—Stromer, E. von, 5.
Naumburg (Cassel).—Henkel, L., 1.
Nautilus.—Airaghi, C., 1; Franz, V., 1; Hœrnes, R., 5; Shattuck, G. B., 1.
——, evolution of.—Hœrnes, R., 4.
Navicula.—Renault, B., 4.
Neamtz (Rumania).—Nicolau, T., 1.
Nebraska (U.S.A.).—Adams, G. I., 1; Barbour, E. H., 1; Matthew, W. D., 6.
Necklace, prehistoric.—Rahir, E., 2.
Neithea.—Woods, H., 1.
Nemagraptus.—Elles, G. L., 1.
Nemertites.—Walther, J., 1.
Neocomian, Fribourg (Switzerland).—Sarasin, C., 2.
——, Galicia.—Volz, W., 1.
——, Germany.—Kœnen, A. von, 1.
——, Montenegro.—Antula, J., 1.
——, Provence.—Pellat, E., 1.
——, Rumania.—Sevastos, R., 2.
——, Westphalia.—Stille, H., 2.
——. *See also* Cretaceous.
Neoicoceras.—Smith, J. P., 1.
Neopithecus.—Schlosser, M., 1.
Nepheline - ægirine - pegmatite, Sutherland.—Goodchild, J. G., 11.
—— -basalts, N.S.W.—Card, G. W., 2.
—— rocks, Galicia.—Thugutt, St. I., 1.
—— ——, Greece, &c.—Hilber, V., 2.
—— ——, Italy.—Franchi, S., 2; Novarese, V., 2; Stella, A., 1.
—— ——, Ontario.—Miller, W. G., 1.
—— ——, Quebec.—Adams, F. D., 3.
—— ——, Tasmania.—Twelvetrees, W. H., 12.
—— ——, Tyrol.—Ippen, J. A., 1–7.
Nephrite stone-implements.—Wolff, F. von, 2.
Nerchinsk (Siberia).—Bordeaux, A., 1.
Neridomus.—Moore, J. E. S., 1.
Nerinæa.—Dacqué, E., 1.
Nerinella.—Chartron, C., 1.
Neritina.—Chartron, C., 1; Fœrster, B., 5.
Neritodonta.—Pavlov, P. S., 2.
Neritopsis.—Bistram, A. von, 1; Chartron, C., 1.
Nerone, Mte. (Marches, Italy).—Alippi, T., 1.
Nettlebank (Staffs.).—Newton, E. T., 1.
Neuchâtel (Switzerland).—Schardt, H., 1 & 5.
Neuenahr (Nassau).—Hintz, E., 1.
Neuenheerse (Westphalia).—Stille, H., 2.
Neundorf (Hanover).—Stille, H., 1.
Neumayria.—Burckhardt, C., 1.
Neurankylus.—Osborn, H. F., 4.
Neuropteris.—Zeiller, R., 1.
Neustadt (Baden).—Schalch, F., 2.
Neustosaurus.—Nopčsa, F. von, Jun., 6.
Neutra (Hungary).—Horusitzky, H., 2.
Neuweilnau (Nassau).—Maurer, F., 1.
Nevada (U.S.A.).—Davis, W. M., 4; Maguire, —, 1.
Nevada, Sierra (Cal.).—Turner, H. W., 1.
Nevado de Toluca (Mexico).—Ordóñez, E., 1.
Nevis I. (W.I.).—Sapper, K., 7.
Newark Formation, Atlantic border.—Hobbs, W. H., 4 & 6.
Newberyite.—Schulten, A. de, 3.
New Caledonia.—Piroutet, M., 1.
Newcastle (N.S.W.).—Atkinson, A. A., 1.

New England Plateau (N.S.W.). — Andrews, E. C., 1.
New England (U.S.A.).—Hobbs, W. H., 6.
Newfoundland.—Daly, R. A., 1; Howley, J. P., 1.
New Guinea.—Pinder, C. R., 1.
New Hampshire (U.S.A.).—Perry, J. H., 1.
New Jersey (U.S.A.).—Hobbs, W. H., 4 & 6; Kuemmel, W. H., 1 & 2; Parsons, A. L., 1; Weed, W. H., 6; Weller, S., 2.
New Mexico (U.S.A.).—Johnson, D. W., 1; Keyes, C. R., 4 & 5; Lerchen, F. H., 1; Reagan, A. B., 1 & 2; Springer, A., 1; Stobbs, L. S., 1.
Newport (Mon.).—Strahan, A., 4.
Newquay (Cornwall).—Kennard, A. S., 1.
New South Wales.—Andrews, E. C., 1 & 2; Atkinson, A. A., 1; Card, G. W., 1–3; Carne, J. E., 1; Coghlan, T. A., 1; David, T. W. E., 1; Deane, H., 1; Etheridge, R., Fil., 3 & 4; Hall, T. S., 2; Kurtz, F., 1; Mingaye, J. C. H., 3; Pittman, E. F., 1.
New York State (U.S.A.).—Clarke, J. M., 1; Cleland, H. F., 1; Comstock, F. M., 2; Dale, T. N., 1; Hobbs, W. H., 4 & 6; Prosser, C. S., 1; Schuchert, C., 3; Smallwood, W. M., 1; Talbot, M., 1; Whitfield, R. P., 4.
New Zealand. — Benham, W. B., 1; Coghlan, T. A., 1; Hamilton, A., 1; Hogben, G., 1; McKay, A., 1; Marshall, P., 1; Morgan, P. C., 1; Park, J., 1; *see also* Earthquakes, &c.
Niagara Formation, Indiana.—Kindle, E. M., 1.
—— Limestone, Ohio. — Claypole, E. W., 1.
—— shale, N. Y.—Whitfield, R. P., 4.
Nice (Alpes-Maritimes).—Riaz, A. de, 2.
NICHOLSON, H. A., memorial. *See* Woodward, H., 9.
Nickel-ore, Saxony.—Beck, R., 1.
—— ——, Silesia.—Illner, —, 1.
—— ——, Sudbury.—Dickson, C. W., 1.
—— ——, Sweden.—Lœfstrand, G., 1.
—— ——, United States.—Day, D. T., 1; Pratt, J. H., 2.
Nicolaus I. (Sea of Aral).—Samoïlov, J., 1.
Nicolet, Glacial Lake (Wisc.).—Upham, W., 3.
Nictaux (N. S.).—Weatherbe, D'A., 1.
Niedenkirchen (Lr. Bavaria).—Stromer, E. von, 3.
Niedertiefenbach (Nassau). — Bellinger, J., 1.
Nieuwenhoven Château (Liége). — Stainier, X., 1.
Nieuwenkerken (Liége).—Stainier, X., 1.
Nile Valley (Egypt).—Ball, J., 1; Beadnell, H. J. L., 1; Cadell, H. M., 3.
Nilssonia.—Mœller, H., 1; Seward, A. C., 2.
Niort (Poitiers).—Michel-Lévy, A., 1; Welsch, J., 1.
Nipa & Nipadites.—Seward, A. C., 5.
Nitrates, Algeria.—Flamand, G. B. M., 1.
Nitrogen, soils &.—Miller, N. H. J., 1.
Nittur (Mysore).—Wetherell, E. W., 2.
Niue I. (Pacific).—Skeats, E. W., 1.
Nivernais (France).—Lamothe, R. de, 1.
Noce R. (Basilicata).—Lorenzo, G. de, 2.
Noce Valley (Albania).— Vinassa de Regny, P., 2.
Nodosaria.—Liebus, A., 2; Schick, T., 1.
Nodule - bearing schists, Colorado. — Read, T. T., 1.
Nograd (Hungary).—Koch, A., 4.
Nord (France).—Dollé, L., 1; Févre, —, 1; Gosselet, J., 1–6; Lagaisse, —, 1; Lebrun, —, 1; Leriche, M., 1; Vaillant, V., 1.
Nordeck (Hesse).—Schottler, W., 1.
NORDENSKJŒLD, A. E. *See Obit.*, Hamberg, A., 1.
Nördlingen (Bavaria).—Branco, W., 1 & 2; Knebel, W. von, 1 & 2.
Norfolk.—Elsden, J. V., 5; Monckton, H. W., 5.
Normandy (France).—Bigot, A., 1–7; Shrubsole, O. A., 1.
Norrberg (Westmanland).—Launay, L. de, 4.
Norrbotten (Sweden).—Holmquist, P. J., 1 & 2; Osborn, C. S., 1; Tœrnebohm, A. E., 1.
Norrland (Sweden).—Ahlenius, K., 1.
North Sea.—Harbœ, E., 1.
Northamptonshire.—Freckelton, T. W., 1; Thompson, B., 1–3.
Northumberland.—Forster, T. E., 1; Goodchild, J. G., 2; I'Anson, J. C., 1; Lebour, G. A., 1.
Norway.—Monckton, H. W., 3 & 5; Rekstad, J., 1; Reusch, H., 1 & 2; Sernander, R., 2; Tœrnebohm, A. E., 2; Vogt, J. H. L., 2; *see also* Scandinavia.
Norwegian Polar Expedition, 'Fram.' —Anon., 29; Bonney, T. G., 8; Schei, P., 1; Sverdrup, O., 1.
Notidanus.—Koch, A., 4; Leriche, M., 1.
Notohippus & Notopithecus. — Ameghino, F., 4.
Nova Scotia (Canada).—Ami, H. M., 2–4; Ells, R. W., 1; Faribault, E. R., 1; Fletcher, H., 1; Gilpin, E., Jun., 1 & 2; Haycock, E., 1 & 2; Mackinlay, A., 1; Poole, H. S., 2; Weatherbe, D'A., 1.
Novigrad (Dalmatia).—Schubert, R. J., 2.
Novorossiisk (S. Russia).—Nikitin, S., 1.
Noyarey (Dauphiné).—Kilian, W., 2.
Noyes Mt. (Canada).—Woodward, H., 7.
Nubecularia.—Steinmann, G., 3.
Nucula. — Etheridge, R., Fil., 2; Walther, K., 1.

Nuculana.—Maurer, F., 1.
Nuculina.—Bistram, A. von, 1.
Nummulites.—Douvillé, H., 1 & 9; Martelli, A., 1; Prever, P., 1.
—— *contortus*-beds.—Haug, E., 2.
Nürnberg (Bavaria).—Spiess, E., 1.
Nürschau (Bohemia).—Jækel, O., 3.
Nyasa (Equatorial Africa).—Henderson, J., 2.
Nyctipithecus.—Wortman, J. L., 1.

Obernzeil (Bavaria).—Launay, L. de, 3.
Obliquipecten—Hind, W., 4.
Obolella.—Walcott, C. D., 3.
Obolus.—Matthew, G. F., 1; Walcott, C. D., 3 & 4; *Obolus*-sandstone, Gotland.—Wiman, C., 2.
Ocean I. (Pacific).—Reed, F. R. C., 3.
—— basins, origin of.—Chamberlin, T. C., 1; Mackie, W., 2; Reade, T. M., 2.
Oceanic deposits.—Blake, J. F., 2; Lohmann, H., 1; Lomas, J., 4.; Verrill, A. E., 2 & 3; Wethered, E. B., 1.
—— salts.—Van't Hoff, J. H., 1–5.
—— water, density of.—Arçtowski, H., 4; Thoulet, J., 1.
Ochetoceras.—Loriol, P. de, 1.
Ocoee Slates, Alabama.—Smith, E. A., 1.
Oculina.—Felix, J., 2.
Odensjön (W. Gotland).—Kjellén, R., 2.
Odontaspis.—Leriche, M., 1.
Odontoceti.—Abel, O., 1.
Odontomysops.—Ameghino, F., 5.
Œblarn (U. Styria).—Redlich, K. A., 1.
Œland I. (Sweden).—Munthe, H., 2.
Œtz Valley (Tyrol).—Hezner, L., 1.
Offenbánya (Transylvania).—Gesell, A., 1; Pálfy, M. von, 1.
Ofotenfjord (Norway).—Vogt, J. H. L., 2.
Ohio (U.S.A).—Bownocker, J. A., 1 & 2; Claypole, E. W., 1; Griswold, W. T., 1; Nickles, J. M., 1; Prosser, C. S., 2; White, D., 3.
Oisans (Savoy).—Girardin, P., 1.
Olchon I. (Lake Baikal).—Bagashov, I., 1.
Olcostephanus.—Bogoslovski, N. A., 1; Weller, S., 1.
Oldhaven Beds, Ipswich.—Bassett, H., Jun., 1.
Old Red Sandstone, Aberdeen.—Milne, Dr. J., 1.
—— ——, Edinburgh.—Goodchild, J. G., 10.
—— —— erratic, Huntsham.—Wood, J. G., 1.
—— ——, Forfar & Perth.—Thomson, A. G. M., 1.
—— ——, Moray Firth.—Mackie, W., 6.
—— ——, Shropshire, &c.—Moore, H. C., 1.
Olenellus.—Weller, S., 2.
Olenoides.—Woodward, H., 7.
Oligocene, Switzerland.—Stehlin, H. G., 1.
Oligoclase.—Lawson, A. C., 2; Tertsch, H., 1.
Oliva.—Cossmann, M., 2.
Olivella.—Casey, T. L., 1.
Olivine-basalt, New South Wales.—Mingaye, J. C. H., 3.
Olten (Solothurn).—Stingelin, T., 1.
Omphaloptycha.—Bistram, A. von, 1.
Onaga (Kan.).—Crevecœur, F. F., 1.
Onondaga L. (N.Y.).—Smallwood, W. M., 1.
Ontario (Canada).—Ami, H. M., 1 & 8; Coleman, A. P., 1 & 4; Ells, R. W., 2 & 3; Graton, L. C., 1; Ingall, E. D., 1; Miller, W. G., 1; Shimer, H. W., 1.
Onyx-marble.—Bodenbender, G., 2.
Oolite, Bavaria.—Schmierer, T., 1.
——, Cotteswold Hills.—Richardson, L., 4.
——, formation of.—Linck, G., 5; Raisin, C. A., 1; Wethered, E. B., 1.
——, Northants.—Thompson, B., 1–3.
Oolitic concretions.—Erdmann, E., 1.
—— iron-ore, Lorraine.—Van Werveke, L., 15; Westphalia.—Wiese, T., 1.
—— limestone, Ashbourne & Buxton Ry.—Arnold-Bemrose, H. H., 1.
Ooze, Britanny shore.—Lechartier, G., 1.
——, Iowa Carboniferous.—Udden, J. A., 2.
Opal, Dillenburg.—Lœcke, —, 1.
——, origin of.—Meunier, S., 7.
——, Queensland.—Jackson, C. F. V., 2.
Ophiceras.—Schellwien, E., 1.
Ophisaurus.—Gerhardt, K., 1.
Ophthalmidium.—Schick, T., 1.
Opissaster.—Gauthier, V., 1.
Oppelia.—Sarasin, C., 2.
Oppeln (Silesia).—Michael, R., 2.
Oppites.—Pampaloni, L., 1.
Oran (Algeria).—Ficheur, E., 1; Haug, E., 2.
Orange-River Colony (S. A.).—Barrett-Hamilton, G. E. H., 1; Hatch, F. H., 2 & 3.
Orbicella.—Felix, J., 3; Shattuck, G. B., 1.
Orbiculoidea.—Chapman, F., 1; Weller, S., 2.
Orbignya.—Toucas, A., 2.
Orbitoides.—Douvillé, H., 4, 9; Martelli, A., 1; Oppenheim, P., 6; Schlumberger, C., 1 & 2.
Orbitolina.—Kossmat, F., 1.
Orbitolites.—Douvillé, H., 3 & 4; Munier-Chalmas, —, 1 & 2.
Orciano (Tuscany).—Ugolini, R., 1 & 3.
Ordovician, Britanny.—Barrois, C., 5; Kerforne, F., 1.
——, Caernarvon.—Fearnsides, W. G., 1.
——, Canada.—Ami, H. M., 1; Nolan, A. W., 1.
——, Minnesota.—Hall, C. W., 1.
——, New Jersey.—Weller, S., 2.
——, Ohio.—Nickles, J. M., 1.

Ordovician pebbles, Peel Red Sandstone.—Gill, E. L., 1.

——. *See also* Cambrian, &c.

Ore-deposits, Algeria.—Meunier, S., 16.

—— ——, Argentina.—Brinsmade, R. B., 1.

—— ——, Bavaria & Tyrol.—Weinschenk, E., 8.

—— ——, country-rock &.—Weed, W. H., 1.

—— ——, depth of.—Gregory, J. W., 5.

—— ——, estimation of extent of.—Kendall, J. D., 1.

—— ——, German African Colonies.—Macco, A., 1.

—— ——, Idaho.—Lakes, A., 2.

—— ——, India (N.W.).—Stephens, F. J., 1 & 2.

—— ——, Iowa.—Beyer, S. W., 1.

—— ——, Lake District.—Postlethwaite, J., 1.

—— ——, Man (I. of).—Lamplugh, G. W., 5.

—— ——, Mexico.—Aguilera, J. G., 1; Blake, W. P., 2; Halse, E., 1; Hill, R. T., 1.

—— ——, Newfoundland.—Howley, J. P., 1.

—— ——, origin of.—Kohler, E., 2; Krahmann, M., 1; Launay, L. de, 1; Lindgren, W., 2; Pošepný, F., 1; Van Hise, C. R., 1.

—— ——, secondary enrichment.—Lakes, A., 3; Rickard, T. A., 1; Weed, W. H., 14; Vogt, J. H. L., 1.

—— ——, Tasmania.—Stewart, H., 1; Twelvetrees, W. H., 1–10; Waller, G. A., 1–3.

—— ——, Transylvania.—Gesell, A., 1.

—— ——, volcanoes &.—Lakes, A., 13.

—— ——. *See also* Veins, Gold, &c.

Ores, percentage of metal in economic.—Hovey, E. O., 3.

——, pockets of.—Lakes, A., 14.

Örebro (Sweden).—Blomberg, A., 1.

Oregon (U.S.A.).—Bonney, T. G., 9; Diller, J. S., 1 & 3; Hay, O. P., 3; Knowlton, F. H., 1; Lindgren, W., 1; Russell, I. C., 5; Smith, G. O., 1; Washburne, C., 1.

Orel Gov. (Russia).—Derjavin, A., 1; Samoïlov, J., 4.

Organ Mts. (N. Mex.).—Lerchen, F. H., 1.

Oriskany Sandstone, Ohio.—Claypole, E., 1.

Orléanais (France).—Grossouvre, A. de, 4.

Ornithomimus.—Osborn, H. F., 4.

Ornithosuchus.—Boulenger, G. A., 1.

Orodus.—Eastman, C. R., 1.

Orography, Algeria.—Ritter, É., 1; Asia.—Richthofen, F. von, 1; Korea.—Kotô, B., 1; Lombardy.—Taramelli, T., 1.

Oroseris.—Osasco, E., 1.

Orsova, New (Servia).—Vinassa de Regny, P., 5.

Orthechinus.—Gauthier, V., 1.

Orthis.—Walther, K., 1; Weller, S., 2.

Orthoceras.—Airaghi, C., 1; Crick, G. C., 1; Hœrnes, R., 4; Ruedemann, R., 2.

Orthophragmina.—Schlumberger, C., 2.

Ortho-riebeckite-gneiss.—Keyserling, H. von, 2.

Orthothetes.—Weller, S., 2.

Orville (Aisne).—Briquet, A., 1.

Osborne Beds, I. of Wight.—Colenutt, G. W., 1; Woodward, H., 5.

Oschiri (Sardinia).—Pampaloni, L., 2.

Osmunda.—Penhallow, D. P., 1.

Osmundaceæ, Mesozoic.—Seward, A. C., 6.

Osmundites.—Penhallow, D. P., 1 & 2.

Ossiferous cavern, Buxton Pliocene.—Dawkins, W. B., 1.

Ostheim (Bavaria).—Blanckenhorn, M., 1.

Ostracoda, Ordovician.—Weller, S., 2.

——, Pleistocene.—Wuest, E., 1.

——, Silurian.—Jones T. R., 1; Weller, S., 2; Whiteaves, J. F., 1.

Ostrea.—Dacqué, E., 1; Hœrnes, R., 2; Oppenheim, P., 6; Shattuck, G. B., 1; Wollemann, A., 1.

Otago (N.Z.).—Park, J., 1.

Otodus.—Leriche, M., 1; Sangiorgi, D., 1.

Otozamites.—Mœller, H., 1.

Ottawa (Canada).—Ells, R. W., 2 & 3 Osann, A., 1.

—— (Kan.).—Yates, J. A., 1.

Ottenby (Œland).—Munthe, H., 2.

Oubangui (Sudan).—Lacoin, —, 1.

Oulad-Nayl Mts. (Algeria).—Ritter, E., 1.

Ovactæonina.—Chartron, C., 1.

Overthrusts, Denver.—Henderson, J., 1.

——, Vermont.—Dale, T., 1.

Ovifak (Greenland).—Winkler, C., 1.

Ovis.—Koch, A., 3; Toula, F., 4.

Oxfordshire.—Pears, T., 1; Walford, E. A., 1.

Oxyrhina.—Eastman, C. R., 2; Koch, A., 4; Leriche, M., 1.

Ozark (Mo.).—Bain, H. F., 2.

Ozieri (Sardinia).—Lovisato, D., 2.

Ozokerite, Galicia.—Galloway, W., 1.

Pachuca (Mexico).—Ordoñez, E., 3.

Pachyæna.—Boule, M., 2.

Pachygyra.—Felix, J., 2; Longhi, P., 1.

Pachymya.—Shattuck, G. B., 1.

Pacific Ocean.—Agassiz, A., 1 & 2; Eastman, C. R., 2; Skeats, E. W., 1; Verrill, A. E., 1.

Padirac Cavern (Lot).—Viré, A., 1.

Pagiophyllum.—Mœller, H., 1; Zeiller, R., 2.

Paintings, Palæolithic cave-.—Cartailhac, E., 1.

Paints, mineral.—Struthers, J., 14.

Palacheite.—Eakle, A. S., 1 & 2.

Palæatractus.—Cossmann, M., 1.

Palæmon.—Woodward, H., 5.

Palæobotany, text-book of.—Fritel, P. H., 1.
Palæochœrus.—Depéret, C., 3.
Palæocyon & *Palæolama.*—Ameghino, F., 2.
Palæolima.—Hind, W., 4.
Palæolithic horses.—Munro, R., 1.
—— implements, Heidelberg. — Schœtensack, O., 1; *see also* Implements.
—— Period, Saône-et-Loire. — Chantre, E., 1.
Palæomutela.—Kayser, E., 1.
Palæontologia Universalis.—Œhlert, D. P., 2; Van den Broeck, E., 8.
Palæontological text-books.—Frech, F., 1 & 2; Fritel, P. H., 2; Mercalli, G., 1; Woodward, A. S., 1.
Palæontology, 1901.—Morley, H. F., 3.
——, America (N.), 1901.—Weeks, F. B., 2; England (N.), 1900.—Sheppard, T., 4; Italy, 1901.—Bonarelli, G., 1.
——, evolution &.—Lydekker, R., 2 & 3; Woodward, H., 12.
——, vertebrate.—Woodward, A. S., 1.
Palæoscincus.—Osborn, H. F., 4.
Palæosolen.—Maurer, F., 1.
Palæosphæroma.—Remeš, M., 1.
Palæospondylus.—Sollas, W. J., 3.
Palæotherium.—Fœrster, B., 5.
'Palagonite-Formation,' Iceland.—Pjetursson, H., 1.
Palestine.—Blanckenhorn, M., 4; Libbey, W., 1 & 2.
Palissya.—Mœller, H., 1.
Palitz Lake (Hungary).—Treitz, P., 3.
Palluau (Vendée).—Michel-Levy, A., 1.
Palmavexi (Sardinia).—Rimatori, C., 2.
Paludestrina.—Stearns, R. E. C., 1.
Paludina.—Hudleston, W. H., 1.
Pampean.—Ameghino, F., 6.
Pandora.—Dollfus, G. F., 6.
Paolia.—Melander, A. L., 1.
Para (Brazil).—Angelis d'Ossat, G. de, 2.
Para-augite-gneiss.—Schalch, F., 1.
Paracerithium.—Chartron, C., 1.
Paracyclas.—Maurer, F., 1.
Paradise goldfield (Queensl.).—Ball, L. C., 2.
Parahyba do Norte (Brazil).—Branner, J. C., 1.
Paralegoceras.—Smith, J. P.
Parallelodon.—Bistram, A. von, 1.
PARANDIER, M. *See Obit.*, Lapparent, A. de, 1.
Parapara (N.Z.).—Park, J., 2.
Parasmilia.—Dennant, J., 1; Shattuck, G. B., 1.
Paratapirus.—Depéret, C., 3.
Pargny (Aisne).—Babinet, —, 1.
Paris (France).—Meunier, S., 3; Schafarzik, F., 7; Szontagh, T. von, 1; Wickersheimer, —, 1.
—— Basin (France). — Canu, F., 2; Dollfus, G., 1, 2, 5; Grossouvre, A. de, 1, 2, 4; Kemna, A., 2; Leriche, M., 3; Maillet, E., 1; Meunier, S., 6; Ramond, G., 1; *see also* Seine R., &c.
Paronosporites.—Pampaloni, L., 1.
Parsley Hay (Derby).—Arnold-Bemrose, H. H., 1.
Parthenay (Poitou).—Welsch, J., 1.
Pašman I. (Dalmatia).—Schubert, R. J., 1.
Patagonia (S. Am.).—Ameghino, F., 3–6; Cordovez, M., 1; Loriol, P. de, 2; Scott, W. B., 1; Scrivenor, J. B., 2; Tournouër, A., 1.
Patagonian.—Ameghino, F., 6.
Patella.—Chartron, C., 1; Shattuck, G. B., 1.
Patent-Office Library.—Dalton, C. N., 1.
Patrick (Wy.).—Adams, G. I., 1.
Pattalophyllia.—Osasco, E., 1.
Patula.—Fœrster, B., 5.
Paumotus Group (Pacific).—Skeats, E. W., 1.
Paving-stones, composition of.—Anon., 31; igneous rocks as.—Joly, J., 6.
Paznaun (Tyrol).—Greim, G., 1.
Pearl (Colo.).—Read, T. T., 1.
Pearls.—Jameson, H. L., 1; Lomas, J., 3 & 6.
Peat, Ashworth Moor.—Baldwin, W., 1.
——, Hanover.—Menzel, H., 1.
——, Ireland.—Johnson, T., 1.
——, Sweden.—Lagerheim, G., 1; Sernander, R., 1; Sjœgren, H., 1.
Pebbles, Calais (Pas-de-), glaciated.—Gosselet, J., 5; Salt Range, glaciated.—Koken, E., 4.
——, Devon (S.), Triassic.—Bonney, T. G., 7; Hunt, A. R., 5; (& Midlands Triassic).—Shrubsole, O. A., 1.
——, Erzgebirge gneiss with.—Gæbert, C., 1.
——, facetted. — Johnsen, A., 3 & 4; Koken, E., 3; *see also* Windworn stones, &c.
——. *See also* Gravels, Shingle, &c.
Pebbly Carboniferous Limestone, Derbyshire.—Arnold-Bemrose, H. H., 1.
Pechelbronn (Alsace).—Andreæ, A., 4; Herrmann, A., 1.
Pecten.—Bistram, A. von, 1; Bittner, A., 1; Blanckenhorn, M., 2; Burckhardt, C., 1; Crema, C., 1; Depéret, C., 4; Etheridge, R., Fil., 2; Franchis, F. de, 1; Martelli, A., 1; Oppenheim, P., 6; Paulcke, W., 1; Shattuck, G. B., 1; Ugolini, R., 4; Woods, H., 1.
Pectunculus.—Woods, H., 1.
Peel (I. of Man).—Gill, E. L., 1.
Pegge Mt. (Liguria).—Ristori, G., 2.
Pegmatite, Lombardy.—Bertolio, S., 1.
——, Sutherland.—Goodchild, J. G., 11.
—— vein, glacial shearing of.—Futterer, K., 1.
Pelado, Cerro (Mendoza).—Bodenbender, G., 1.
Pelé, Mt. (Martinique).—Anderson, T., 1–5; Branner, J. C., 4; Colonna, E., 1; Gautier, A., 1; Griffiths, A. B., 1; Hovey, E. O., 1, 2, 4, & 5; Lacroix, A., 1–4, 8, 9, & 12; Strachey, R., 1; Verrill, A. E., 3; *see also* Martinique, &c.

Peltephilus.—Scott, W. B., 1.
Peltoceras.—Burckhardt, C., 1.
Pelvoux massif.—Termier, P., 3.
Pemba I. (E. Africa).—Crossland, C., 1.
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Penmorfa (Caernarvon). — Fearnsides, W. G., 1.
Pennatulites.—Nelli, B., 1.
Pennine faults.—Kendall, P. F., 1.
Penning, W. H. *See Obit.*, Woodward, H. B., 4.
Pennsylvania (U.S.A.).—Adams, T. K., 1; Fuller, M. L., 1; Heurteau, C. E., 1; Lyman, B. S., 1; Simmersbach, B., 1; Stœk, H. H., 1; White, D., 3.
Penpethy Beds, Cornwall.—Parkinson, J., 1.
Pensauken Formation, Long Island (N.Y.).—Fuller, M. L., 3.
Pentacrinus.—Wollemann, A., 1.
Pentamerus.—Lotz, H., 1; Weller, S., 2.
Pentland Hills (Scotland).—Strachan, J., 1.
Pentremites.—Hambach, G., 1.
Penza (Russia).—Sinzow, I., 1.
'Peperino,' Campania.—Sabatini, V., 2; formation of.—Fantappié, L., 1.
Pericosmus.—Gauthier, V., 1; Martelli, A., 1.
Pericyclus.—Smith, J. P., 1.
Peripristis.—Eastman, C. R., 1.
Perisorites.—Pampaloni, L., 1.
Perisphinctes. — Burckhardt, C., 1; Loriol, P. de, 1.
Perm Gov. (Russia).—Vernadski, V., 1.
Permian, Alsace-Lorraine.—Benecke, E. W., 5; Brunzel, K., 1; Buecking, H., 3; Zeiller, R., 1.
——, Campine. —Lapparent, A. de, 4; Simoëns, G., 7 & 8.
——, China.—Schellwien, E., 1.
——, Cumberland.—Kendall, P. F., 1.
——, Devon.—Somervail, A., 2.
——, Durham & Northumberland. — Lebour, G. A., 1.
——, Frankenberg.—Stille, H., 4.
——, Kansas.—Jones, A. W., 1; Keyes, C. R., 3; Sellards, E. H., 3.
——, Pyrenees.—Caralp, J., 1–3.
——, Saône-et-Loire.—Delafond, F., 1.
——, Texas.—Case, E. C., 1 & 2; Sternberg, C. H., 2.
——, Vosges.—Delépine, G., 1.
Permo-Carboniferous, Australia (S).—Greenway, T. C., 1.
——, Mendoza.—Bodenbender, G., 1.
——, Nebraska.—Barbour, E. H., 1.
——, Rhodesia.—Arber, E. A. N., 5; Hind, W., 3; Molyneux, A. J. C., 1; Woodward, A. S., 10.
——, Salt-Range.—Koken, E., 4; Lapparent, A. de, 3.
——, Victoria (Austral.).—Kitson, A. E., 1; Thiele, E. O., 1.
Perna.—Burckhardt, C., 1.
Perranporth (Cornwall).—Scrivenor, J. B., 1.
Persberg (Värmland).—Launay, L. de, 4.
Persea.—Engelhardt, H., 1.
Persia.—Cotteau, G., 1; Gauthier, V., 1.
Persian fossil faunas & European. — Douvillé, H., 2.
Persona.—Cossmann, M., 2.
Peru (S. Am.).—Balta, J., &c., 1; Larrabure, E., 1; Paulcke, W., 1; Stevanovič, S., 1.
Perugia (Umbria).—Bortolotti, C., 2.
Petalodus.—Eastman, C. R., 1.
Petervarad Mts. (Hungary).—Pethœ, J., 3
Pethœ, J. *See Obit.*, Bœckh, J., 2; Schafarzik, F., 3.
Petitor (Devon).—Hunt, A. R., 1.
Petra (Palestine).—Libbey, W., 2.
Petroleum, Burma.—Holland, T. H., 3.
——, California.—Mabery, C. F., 1.
——, Campania.—Anon., 25.
——, Canada.—Ingall, E. D., 2; Mabery, C. F., 1.
——, Colorado.—Lakes, A., 5.
——, Daghestan. — Golubyatnikov, D. V., 1.
——, distribution of.—Gærtner, S., 1; Hœfer, H., 1.
——, Dublin (*supposed*).—Cole, G. A. J., 4.
——, Egypt.—Barron, T., 1; Blanckenhorn, M., 4.
——, Galicia.—Galloway. W., 1.
——, India.—Grundy, J., 1.
——, Indiana. — Blatchley, W. S., 2; Zaring, W. C., 1.
——, Ohio.—Bownocker, J. A., 1; Claypole, E. W., 1; Griswold, W. T., 1; Mabery, C. F., 1.
——, Pennsylvania.—Fuller, M. L., 1; Mabery, C. F., 1.
——, Peru.—Garland, A., 1.
——, Rumania.—Angelis d'Ossat, G. de, 7; Poni, P., 1.
——, Tasmania.—Twelvetrees, W. H., 2.
——, Texas.—Lucas, A. F., 1; Mabery, C. F., 1; Stœk, H. H., 2.
——, text-book on.—Thomson, J. H., 1.
——, Turkestan.—Levat, E. D., 1 & 2.
——, United States, occurrences.—Day, D. T., 1; Oliphant, F. H., 1.
——. *See also* Kerosene, Oil-shales, &c.
Petrological ideas, evolution of.—Teall, J. J. H., 1.
—— sections of rocks.—Souza-Brandão, V. de, 1.
——, text-book.—Weinschenk, E., 1.
Petrology, 1901.—Morley, H. F., 1.
——, America (N.), 1901.—Weeks, F. B., 2.
——, British East Africa.—Prior, G. T., 2.
——, experimental.—Medanich, G., 1; Petrasch, K., 1.
——, Man (I. of).—Lamplugh, G. W. 5.

Petrology, photography.—Moss, W., 1.
——, quantitative classification.—Cross, W., 1.
Petromartus.—Melander, A. L., 1.
Petrovsk (Saratov).—Kalitzki, K., 1.
Pettardite.—Pettard, W. F., 1.
Pfaffenreuth (Bavaria).—Launay, L. de, 3.
Pfunderer Berg (Tyrol).—Weinschenk, E., 7.
Phacops.—Drevermann, F., 2.
Phalacrocorax.—Regàlia, E., 1.
Phandella.—Casey, T. L., 1.
Pharmacolite.—Schulten, A. de, 2.
Philippine Is.—Nichols, J. C., 1.
Phillipsastræa.—Penecke, K. A., 1.
Phillipsia.—Drevermann, F., 2; Parkinson, H., 1.
Phillipsite.—Hulyák, V., 1.
Phlegræan Fields (Campania).—Guenther, R. T., 1; Lorenzo, G. de, 1, 3–6.
Phoca.—Ugolini, R., 1–3.
Phœnicopsis.—Mœller, H., 1.
Pholadomya.—Burckhardt, C., 1; Etheridge, R., Fil., 2; Shattuck, G. B., 1.
Pholas.—Dollfus, G. F., 6.
Phonolite, Abyssinia.—Raisin, C. A., 1.
Phos.—Casey, T. L., 1; Cossmann, M., 2.
Phosgenite.—Warren, C. H., 1.
Phosphates, Australia (S.).—Brown, H. Y. L., 3 & 4; Chewings, C., 1.
——, Egypt.—Blanckenhorn, M., 4.
——, Nord.—Gosselet, J., 1.
——, Ocean I.—Reed, F. R. C., 3.
——, origin of.—Chewings, C., 1.
——, Otago.—Park, J., 1.
——, Quercy.—Stefano, G. de, 1.
——, Tennessee.—Safford, J. M., 2.
——, United States.—Struthers, J., 8.
Phosphatic chalk, Aisne.—Briquet, A., 1 & 2; Lasne, H., 1; Rabelle, —, 1.
——, natural dephosphating.—Gosselet, J., 3.
Phosphorite, Lorraine.—Van Werveke, L., 17.
Phosphorus, meteoric free.—Farrington, O. C., 1.
Photographs, geological. — Watts, W. W., 3.
Photography, fossils &.—Ingen, G. van, 1; geology &.—Woodward, H., 8; petrology &.—Heineck, F., 1; Moss, W., 1.
Phragmites.—Engelhardt, H., 1.
Phycodes.—Fuchs, T., 2.
Phylactella.—Maplestone, C. M., 1.
Phyllicardium.—Andrussov, N., 1.
Phyllites.—Knowlton, F. H., 1.
Phylloceras.—Burckhardt, C., 1; Loriol, P. de, 1.
Phyllocœnia.—Dacqué, E., 1; Felix, J., 2 & 4.
Phyllopoda, Silurian.—Schubert, R. J., 4.
Phyllosmilia.—Felix, J., 2.
Physa.—Springer, A., 1; Stearns, R. E. C., 1.
Physical geography, practical.—Davis, W. M., 2.
—— ——, Scania.—Hennig, A., 1.
—— ——, text-book.—Dryer, C. R., 1.
Physonemus.—Eastman, C. R., 1.
Phytophtirites.—Pampaloni, L., 1.
Picardy (France).—Bardou, —, 1; Barrois, C., 1; Desailly, —, 1; Gosselet, J., 1–6.
Pickering, 'lake' (Yorks).—Clark, J. E., 1.
Picromerite.—Van't Hoff, J. H., 5.
Pictures, cave.—Moissan, H., 2; Rivière, E., 1.
Piedmont (Italy).—Aimonetti, C., 1; Artini, E., 1; Bœris, G., 1; Novarese, V., 1 & 2; Patrini, P., 1; Roccati, A., 1; Sacco, F., 2; Silvestri, A., 1; Taramelli, T., 5; Termier, P., 3; Zaccagna, D., 1; Zambonini, F., 2 & 3.
Pierrefitte (Seine-et-Oise).—Meunier, S., 2.
'Pietre verdi,' Alpes-Maritimes.—Roccati, A., 1.
Pietrele Rosič-Lucaci massif (Rumania).—Butureanŭ, V. C., 1.
Pigtao (Philippine Is.).—Nichols, J. C., 1.
Pila.—Renault, B., 4.
Pileolus.—Dainelli, G., 3.
Pillow-lava, Newfoundland.—Daly, R. A., 1.
Pinacoceras.—Airaghi, C., 1.
Pinhay cliff (Devon).—Rowe, A. W., 2.
Pinna.—Beede, J. W., 1; Burckhardt, C., 1; Dainelli, G., 3; Shattuck, G. B., 1.
Piona (Lombardy).—Bertolio, S., 1.
Pioneer R. (Queensl.).—Cameron, W. E., 3.
Pisa (Tuscany).—Regàlia, E., 1.
Pisanite.—Schaller, W. T., 1.
Pit R. (Siberia).—Ijitzka, N., 1.
Pitheculus.—Ameghino, F., 4.
Pittsburg (Kan.).—Crane, W. R., 2; Haas, F., 1.
Pityophyllum.—Mœller, H., 1; Zeiller, R., 2.
Pitys.—Scott, D. H., 1.
Placenticeras.—Kossmat, F., 1.
Placer-gold, Colorado.—Lakes, A., 1; Turkestan.—Levat, E. D., 1.
Placocœnia & *Placohelia.*—Felix, J., 2.
Placosmilia.—Felix, J., 2; Longhi, P., 1.
Placunopsis.—Dainelli, G., J.
Plagiozamites.—Zeiller, R., 1.
Plains, alluvial.—Ellis, T. S., 1.
——, Alsace-Lorraine.—Schumacher, E., 5 & 6.
——, America (N.).—Davis, W. M., 3; Johnson, W. D., 1.
——, Germany (N.).—Jentzsch, A., 2.
——, Idaho.—Russell, I. C., 3.
Planetessimal hypothesis.—Chamberlin, T. C., 1.
Planets, gravity &.—Borredon, G., 1–5.

Planorbis.—Fœrster, B., 5; Pavlov, P. S., 2; Stearns, R. E. C., 1.
Plant-activity, ancient.—Renault, B., 2.
—— evolution, fossil.—Kinkelin, F., 1; Wieland, G. B., 2.
Plants, Arctic fossil.—Andersson, G., 2.
——, Carboniferous.—Arber, E. A. N., 1–5; Barsanti, L., 1; Benson, M., 1 & 2; Condra, G. E., 1; Etheridge, R., Fil., 4; Fuchs, T., 2; Kidston, R., 1 & 2; Lomas, J., 4 & 5; Oliver, F. W., 1; Poole, H. S., 1; Renault, B., 1–4; Scott, D. H., 1 & 2; Sellards, E. H., 2; Seward, A. C., 2–4; Zalesski, M., 1; Carboniferous to Quaternary.—Kinkelin, F., 1.
——, Cretaceous.—Clark, W. B., 1; Fliche, F., 1; Penhallow, D. P., 1 & 2; Staub, M., 1.
——, Devonian.—Nathorst, A. G., 1; Seward, A. C., 2; Staub, M., 1.
——, geology &.—Smith, W. G., 1.
——, Glacial Period &.—Anon., 35.
——, gneiss, &c., with remains of.—Dal Piaz, G., 1 & 2.
—— impressions, determinations from.—Bommer, O., 1.
——, Jurassic.—Kilian, W., 4; Mœller, H., 1; Nathorst, A. G., 2; Seward, A. C., 1–3 & 6; Staub, M., 1; Steinmann, G., 5; Zeiller, R., 2 & 3.
——, Permian.—Zeiller, R., 1.
——, Permo-Carboniferous.—Arber, E. A. N., 4; Etheridge, R., Fil., 1; Kurtz, F., 1; Smedley, H. E. H., 1.
——, Quaternary.—Andersson, G., 1; Sernander, R., 3; Quaternary to Carboniferous.—Kinkelin, F., 1.
——, Rhætic.—Mœller, H., 1; Seward, A. C., 4.
——, silicified.—Pampaloni, L., 2.
—— Silurian.—Seward, A. C., 3; White, D., 2; Whitfield, R. P., 4.
——, Tertiary.—Crevecœur, F. F., 1; Deane, H., 1; Engelhardt, H., 1; Fœrster, B., 5; Kerner, F., 1; Knowlton, F. H., 1; Lorenz, J. von, 2; Nelli, B., 1; Palibin, J. von, 1; Pampaloni, L., 1; Penhallow, D. P., 1; Rowe, J. P., 2; Seward, A. C., 5; Squinabol, S., 1; Staub, M., 1; Trotter, A., 1; Tuzson, J., 1.
——, text-book of fossil.—Fritel, P. H., 1.
——, Triassic.—Benecke, E. W., 2; Compter, G., 1; Fliche, P., 3 & 4; Frech, F., 1; Seward, A. C., 3.
——, Wealden.—Seward, A. C., 4.
——. *See also* Algæ, &c.
Plateaux, United States.—Davis, W. M., 3.
Platecarpus.—Williston, S. W., 2.
Platinum, Sudbury, nickel-ore with.—Dickson, C. W., 1.
——, United States.—Day, D. T., 1; Struthers, J., 2.
——, Urals.—Duparc, L., 2.
Platte R. (U.S.A.).—Condra, G. E., 2.
Platyceras & Platyostoma.—Weller, S., 2.
Platypygus.—Loriol, P. de, 2.
Platysmilia.—Felix, J., 2.
Platysomus.—Eastman, C. R., 1.
Platystrophia.—Cumings, E. R., 1.
Platytrochus.—Dennant, J., 1.
PLATZ, P. *See Obit.*, Anon., 10.
Plectambonites.—Chapman, F., 1.
Pleistocene. *See* Quaternary.
Plesictes.—Depéret, C., 3.
Plesiosaurus.—Williston, S. W., 3 & 4.
Plessur R. (Grisons).—Hœk, H., 1.
Pleurodesma.—Dollfus, G. F., 6.
Pleurodictyum.—Parkinson, H., 1.
Pleurograptus.—Elles, G. L., 1.
Pleuronautilus.—Airaghi, C., 1.
Pleurophorus.—Beede, J. W., 1; Yakovlev, N., 4.
Pleurostomella.—Liebus, A., 2; Silvestri, A., 1.
Pleurotoma.—Casey, T. L., 1.
Pleurotomaria.—Bistram, A. von, 1; Pritchard, G. B., 2; Shattuck, G. B., 1.
Plicatula.—Bistram, A. von, 1.
Pliocene, Alsace.—Van Werveke, L., 8.
——, Britanny.—Lebesconte, P., 1.
——, Caucasus.—Michalovski, G. P., 1.
——, Egypt, &c.—Blanckenhorn, M., 2.
——, England (N.W.).—Dawkins, W. B., 1; (S.E.).—Monckton, H. W., 5; Rutot, A., 4; (S.W.).—Johnson, J. P., 1.
——, Mediterranean shore-lines, Provence, &c.—Depéret, C., 2.
——, Piedmont.—Patrini, P., 1.
——, Rhine.—Lamothe, R. de, 2; Monckton, H. W., 5.
——, Sicily.—Seguenza, L., 1.
——, Spain.—Woodward, A. S., 4.
——. *See also* Tertiary.
Plocophyllia.—Osasco, E., 1.
Plocoscyphia.—Ungern-Sternberg, E. von, 1.
Plumasite.—Lawson, A. C., 2.
Podicipes.—Regàlia, E., 1.
Podocnemis.—Andrews, C. W., 1.
Podolia (Russia).—Venukov, P. I., 1.
Podozamites.—Mœller, H., 1.
Poitiers (France).—Michel-Lévy, A., 1; Welsch, J., 1.
Pojana-Ruszka (Hungary).—Schafarzik, F., 6.
Polar climates, evolution &.—Wieland, G. B., 2.
—— Expedition. *See* Arctic, &c.
Pollicipes.—Benham, W. B., 1.
Polycotylus.—Williston, S. W., 4.
Polygrata.—Weller, S., 2.
Polypora.—Penecke, K. A., 1.
Polytremacis.—Felix, J., 1.
Polyzoa. *See* Bryozoa.
Pomerania.—Berendt, G., 1.
Pondoland (Cape Colony).—Rogers, A. W., 3.
Ponor (Transylvania).—Telegd, L. R. von, 1.

Ponti (Marches, Italy).—Mariani. M., 1.
Pontiac Co. (Quebec).—Ells, R. W., 3.
Pontian, Austria.—Fuchs, T., 5; Croatia.—Gorjanovič-Kramberger, K., 2; Hungary.—Lœrenthey, E., 1.
Pontypridd (Glamorgan).—Strahan, A., 1 & 5.
Popanoceras.—Smith, J. P., 1.
Populus.—Engelhardt, H., 1; Knowlton, F. H., 1.
Porocidaris.—Checchia-Rispoli, G., 1.
Porosity, rock.—Moore, C. C., 1.
Porphyrite, Quenast.—Elsden, J. V., 4.
——, Styria.—Fabian, K., 1.
Porphyritic andesite, Wicklow.—Seymour, H. J., 2.
Porphyry, Augustusburg-i.-Sa. — Zimmermann, R., 1.
——, Black Forest.—Schalch, F., 1.
——, Greece.—Hilber, V., 2.
——, Hungary.—Schafarzik, F., 1.
——, Montenegro.—Manasse, E., 1.
——, Piedmont.—Taramelli, T., 5.
——, Silesia.—Dathe, E., 1.
——, Taunus.—Buecking, H., 5.
——, Tyrol.—Hammer, W., 2; Ippen, J. A., 1, 3, & 5; Romberg, J., 1 & 2; Wolff, F. von, 1.
——, Uri.—Bœckh, J., 3.
——, Venetia.—Keyserling, H. von, 1.
Porretta (Emilia).—Nelli, B., 1.
Port-Philip Head (Vict.). — Grant, F. E., 1.
Portland cement.—Kimball, L. L., 6; Russell, I. C., 2; Taff, J. A., 2.
Portlandian, Bavaria, &c. — Schmierer, T., 1; Boulonnais.—Zeiller, R., 3.
Portoferraio (Liguria).—Cortese, P., 1.
Portotorres (Sardinia).—Lovisato, D., 1.
Portovenere (Liguria).—Capellini, G., 2.
Portugal.—Choffat, P., 4; Felix, J., 4.
Possession Is. (Gulf of Carpentaria).—Jackson, C. F. V., 3.
Post, H. von. *See Obit.*, Svenonius, F., 1.
Post-Glacial Beds, Dundee. — Durham, J., 1.
Pot-holes, Bitterfeld.—Riedel, O., 1.
——, Magdeburg.—Wahnschaffe, F., 1.
Potash-salt deposits. — Lang, O., 1; Lœwe, L., 1; Ochsenius, C., 1; Van't Hoff, J. H., 1–5.
Potchefstroom (Transvaal).—Hatch, F. H., 2.
Potomac Group.—Clark, W. B., 1.
Powell, J. W. *See Obit.*, Anon., 11; Gilbert, G. K., 1; Merrill, G. P., 5; Walcott, C. D., 7.
Præradiolites.—Douvillé, H., 6.
Præsorites.—Douvillé, H., 3.
Prägratten (Tyrol).—Pohl, O., 1.
Prague (Bohemia). — Fritsch, A., 1; Počta, P., 1.
Precious stones, Mexico.—Kunz, G. F., 2; United States. — Day, D. T., 1; Kunz, G. F., 3.
Predazzo (Tyrol),—Dœlter, C., 3; Ippen, J. A., 1–7; Romberg, J., 1 & 2.
Prehnite.—Fromme, J., 1.
Prenaster.—Loriol, P. de, 2.
Preolenna (Tasmania). — Twelvetrees, W. H., 2.
Prescott Co. (Ontario).—Ells, R. W., 3.
Primates, origin of.—Wortman, J. L., 1.
——, Quaternary. — Lorenz, L. von, 1; *see also* Man, &c.
Prince Albert Div. (Cape Colony).—Rogers, A W., 5.
Prince-of-Wales Island (Alaska). — Thomæ, W. F. A., 1.
Prince-Rudolph I. *See* Rudolph.
Prionastræa.—Osasco, E., 1.
Prionoceras.—Smith, J. P., 1.
Prizac (Morbihan).—Gaubert, P., 1.
Proarcestes.—Airaghi, C., 1.
Proboscidella.—Tchernyshev, T., 1.
Procerithium.—Chartron, C., 1.
Prodromites.—Smith, J. P., 1.
Productus. — Nœtling, F., 2; Tchernyshev, T., 1.
—— limestone, Salt Range.—Lapparent, A. de, 3.
Proëtus.—Weller, S., 2.
Proëutatus.—Scott, W. B., 1.
Progenetta.—Major, C. I. F., 1.
Prolecanites.—Smith, J. P., 1.
Promathildia. — Bistram, A. von, 1; Chartron, C., 1.
Promysops.—Ameghino, F., 5.
Pronorites.—Smith, J. P., 1.
Propalæmon.—Woodward, H., 5.
Propalæohoplophorus. — Scott, W. B., 1.
Propolymastodon.—Ameghino, F., 5.
Propterus.—Sauvage, H. E., 2.
Proroporus.—Liebus, A., 2.
Prosocœlus.—Maurer, F., 1; Walther, K., 1.
Protamusium.—Etheridge, R., Fil., 2.
Proteodidelphys.—Ameghino, F., 4.
Prothyris.—Drevermann, F., 2.
Protocardia & *Protocerithium.* — Bistram, A. von, 1.
Protodictyon.—Melander, A. L., 1.
Protoseris.—Felix, J., 2.
Protosphyræna.—Leriche, M., 1.
Proustite.—Lamplough, F. E. E., 1.
Provence (France). — Depéret, C., 2; Douvillé, H., 4; Frech, F., 1; Jacob, C., 1; Pellat, E., 1; Répelin, J., 1; Toucas, A., 1.
Prozaëdius.—Scott, W. B., 1.
Prunus.—Knowlton, F. H., 1.
Prussia (Germany). — Geinitz, E., 3; Jentzsch, A., 4; Michael, R., 3; Ungern-Sternberg, E. von, 1.
Psammechinus.—Loriol, P. de, 2.
Pseudamusium.—Hind, W., 4.
Pseudavicula.—Etheridge, R., Fil., 2.
Pseudoamnicola.—Pavlov, P. S., 2.
Pseudoasterophyllites.—Zeiller, R., 2.
Pseudocidaris.—Loriol, P. de, 2.
Pseudocorax.—Leriche, M., 1.
Pseudocrinites.—Schuchert, C., 5.
Pseudolestodon.—Ameghino, F., 2.
Pseudomelania.—Chartron, C., 1.

Pseudomonotis.—Bistram, A. von, 1; Burckhardt, C., 1; Diener, C., 1; Newton, R. B., 1; Yakovlev, N., 4.
Pseudomorphs.—Cohen, E., 3; Gœssl, J., 1; Goodchild, J. G., 9; Van Werveke, L., 3; Vernadski, V. S., 3.
Pseudosalenia.—Loriol, P. de, 2.
Pseudotissotia.—Solger, F., 1.
Pseudotsuga.—Penhallow, D. P., 1.
Psygmophyllum.—Seward, A. C., 2.
Pteranodon.—Eaton, G. F., 2.
Pteraspis.—Dollo, L., 4; Fox, H., 1.
Pteria.—Etheridge, R., Fil., 2.
Pteridorachis.—Nathorst, A. G., 1
Pterinopecten.—Hind, W., 4.
Pteris.—Dean, H., 1.
Pterocarya.—Engelhardt, H., 1.
Pterodactyls.—Eaton, G. F., 2; Langley, S. P., 1; Lucas, F. A., 2.
Pterodon.—Andrews, C. W., 3.
Pteroperna.—Dainelli, G., 3.
Pterophyllum.—Mœller, H., 1.
Pteropoda, Tertiary.—Fuchs, T., 4; *see also* Gasteropoda.
Ptilodictya.—Weller, S., 2.
Ptilolite.—Colomba, L., 1.
Ptilozamites.—Mœller, H., 1.
Ptychides & *Ptychites.*—Airaghi, C., 1.
Ptychoceras.—Sarasin, C., 2; Uhlig, V., 1.
Ptychodus.—Leriche, M., 1.
Ptychoparia, *Ptychopteria*, & *Ptychopyge.*—Weller, S., 2.
Puchov Marls, Hungary.—Liebus, A., 1.
Puget Sound (Alaska).—Brooks, A. H., 1.
Pugnax.—Tchernyshev, T., 1.
Punjab (India).—Simpson, R. R., 1.
Puracé volcano, Colombia.—White, R. B., 1 & 2.
Purbeck, I. of (Dorset).—Hudleston, W. H., 1.
Purbeck Beds, Wiltshire.—Jukes-Browne, A. J., 2.
Purpurina.—Moore, J. E. S., 1.
Puy-de-Dôme (Auvergne).—Brunhes, B., 2.
Pycnochlorite.—Fromme, J., 1.
Pyrenees (French, &c.)—Bertrand, L., 1; Caralp, J., 2 & 3; Carez, L., 3; Frech, F., 1; Garrigou, F., 1; Roussel, J., 1 & 2; Stuart-Menteath, P. V., 1-3.
Pyrgulifera.—Moore, J. E. S., 1.
Pyrimont-Challonges (Savoy).—Depéret, C., 3.
Pyrites.—Achiardi, G. d', 4; Eckel, E. C., 1; Knett, J., 2; Melczer, G., 1; Schaller, W. T., 1; Struthers, J., 9.
Pyromorphite.—Bowman, H. L., 1.
Pyrophyllite.—Morozevich, I., 2.
Pyrotherium.—Ameghino, F., 1 & 2.
Pyroxene.—Weidman, S., 1.
—— -melanite.—Colomba, L., 2; Franchi, S., 3.
——, titaniferous.—Winchell, A. N., 4.
Pyrrhotine.—Zambonini, F., 3.
Pythites.—Pampaloni, L., 1.
Quarries, Great Britain, &c.—Atkinson, J. B., 1; Foster, Sir C. Le N., 1 & 2.
——, Paris, ancient subterranean.—Wickersheimer, —, 1.
Quartz.—Achiardi, G. d', 3; Barker, T. V., 1; Gœssl, J., 1; Knett, J., 1; Lincio, G., 1; Zimmermann, R., 1.
—— dykes, Man (I. of).—Bonney, T. G., 4; Lomas, J., 1.
——, etching in conglomerates.—Fuller, M. L.,, 2.
—— -porphyry, Augustusberg.—Zimmermann, R., 1; Botzen.—Wolff, F. von, 1; Hungary.—Schafarzik, F., 1; Uri.—Bœckh, J., 3.
—— reefs, Waihi goldfield.—Morgan, P. C., 1.
—— veins.—Harker, A., 3; Hunt, A. R., 2; Joly, J., 3.
Quartzite, markings in Rocky Mts.—Bonney, T. G., 2 & 6.
——, Neuweilnau.—Maurer, F., 1.
——, Ural Mts.—Duparc, L., 7.
Quaternary, Alpes Maritimes.—Riaz, A. de, 2.
——, Alsace-Lorraine.—Dœderlein, L., 1 & 2; Fœrster, B., 4 & 6; Schumacher, E., 3; Van Werveke, L., 18.
——, Aniene Valley.—Viola, C., 1.
—— Basilicata Lakes.—Lorenzo, G. de, 2.
——, Belfast.—Præger, R. L., 2.
——, Belgium.—Delvaux, E., 1; Fourmarier, P., 1; Rutot, A, 1 & 4; Van den Broeck, E., 5; Van Ertborn, O., 7.
——, Berkshire.—Blake, J. H., 1.
——, Bottendorf.—Wuest, E., 2.
——, Californian elevation.—Turner, H. W., 1.
——, classification of.—Dollfus, G. F., 3.
——, Cornwall.—Bullen, R. A., 2; Johnson, J. P., 1; Kennard, A. S., 1.
——, Denmark.—Wesenberg-Lund, C., 1.
——, England (S.E.).—Monckton, H. W., 1 & 6; *see also* Berkshire, &c.
——, Hanover.—Menzel, H., 1.
——, Holland.—Lorié, J., 1; Rutot, E., 4.
——, Lansing (Kan).—Winchell, N. H., 3.
——, Leicester.—Fox-Strangways, C., 1.
——, Long Island (N.Y.).—Fuller, M. L., 3.
——, Meuse R. variations.—Bois, P., 1.
——, Moravia.—Kříz, M., 1.
——, Nord.—Gosselet, J., 2 & 5.
——, Norway.—Monckton, H. W., 3.
——, Oxfordshire.—Pears, T., 1.
——, Paris Basin.—Meunier, S., 6; Ramond, G., 1.
——, Patagonia.—Ameghino, F., 6.
——, Prussia.—Berendt, G., &c., 1; Frech, F., 2; Geinitz, E., 3; Michael, R., 3.
——, ——, with Jurassic corals.—Oppenheim, P., 4.

Quaternary, Rhein-Hesse.—Schopp, H., 1.
——, Rumania.—Sevastos, R., 4.
——, Samara Gov.—Neustruev, S., 1.
——, Salt Range.—Koken, E., 1.
——, Schleswig-Holstein, &c.—Stolley, E., 1.
—— shore-lines, France (S.).—Depéret, C., 2.
——, Thames Valley.—Kennard, A. S., 2; Newton, E. T., 2.
——, Thuringia.—Wuest, E., 3 & 4.
——, Vaud.—Meunier, S., 8.
——, Victoria (Austral.).—Dennant, J., 3.
——. *See also* Drift, Lœss, &c.
Quiberon (Britanny). — Montessus de Ballore, F. de, 1.
Quicksilver, Dalmatia.—Bukowski, G. von, 1; Bohemia. — Liebus, A., 1; Texas.—Hill, B. F., 1; Moses, A. J., 1; Tuscany.—Lotti, B., 3.
——, United States production.—Day, T., 1; Struthers, J., 3.
Quebec (Canada).—Ells, R. W., 2 & 3.
——, Prov. (Canada). — Adams, F. D., 3; Ami, H. M., 8.
'Queen Stone,' Huntsham.—Wood, J. G., 1.
Queensland. — Ball, L. C., 1, 2 & 3; Cameron, W. E., 1–3; Coghlan, T. A., 1; Dixon, R., 1; Dunstan, B., 1–3; Gregory, J. W., 6; Jackson, C. F. V., 1–3.
Quenast (Brabant).— Elsden, J. V., 4; Lagrange, E., 1; Simoëns, G., 5.
Quercus.—Engelhardt, H., 1; Knowlton, F. H., 1; Palibin, J. von, 1.
Quercy (Guienne).—Stefano, G. de, 1.
Quillan (Languedoc).—Carez, L., 1.

Radiolaria, Borneo.—Molengraaff, G. A. F., 1.
Radiolites.—Dacqué, E., 1; Douvillé, H., 6.
Radium, age of the earth &.—Joly, J., 4.
Radula.—Etheridge, R., Fil., 2.
Rain-fall, underground water-level &.—Hooker, C. P., 1.
Rain-spots, fossil.—Schmitz, G., 1.
Raised beaches, Cornwall. — Johnson, 1; Kennard, A. S., 1; Co. Cork glacial. —Muff, H. B., 1; Massachusetts.—Tarr, R. S., 1; origin of.—Reade, T. M., 2; Scandinavia. — Kœveslighethi, R. von, 1; Tor Bay.—Hunt, A., R., 8.
Rajputana (India).—La Touche, T. D., 1.
Rakonitz (Bohemia).—Weithofer, K. A., 1.
Ralligstöcke (Berne).—Douvillé, H., 10.
Rana.—Fraas, E., 3.
Randengrobkalk, Helvetian &.—Rollier, L., 3.
Ranella.—Cossmann, M., 2.
Rangifer.—Alessandri, G. de, 1; Kříz, M., 1.
Rapakivi-diabase, S. Russia.—Popov, S. P., 1.
Raphistoma.—Cossmann, M., 2; Weller, S., 2.
Rappoltsweiler (Alsace).—Van Werveke, L., 5.
Rare earths.—Magee, W. H., 1.
RASHLEIGH collection of minerals.—Enys, J. D., 1.
Rasina R. (Servia).—Eletz, V. M., 1.
Raspite.—Hussak, E., 1.
Ratitæ, Tertiary.—Ihering, H. von, 1.
Ravenswood (Queensland). — Cameron, W. E., 3.
Reading (Berks.).—Blake, J. H., 1.
Recco (Liguria).—Ristori, G., 2.
Receptaculites.—Weller, S., 2.
Recoaro (Venetia).—Oppenheim, P., 6.
Red Chalk, Norfolk.—Elsden, J. V., 5.
'Red-rain' dust, analyses of.—Thorpe, T. E., 1.
—— ——, Canary Is.—Tacquin, A., 1.
—— ——, Italy.—Flores, E., 1.
—— ——, Portugal.—Choffat, P., 4.
—— ——, Victoria.—Chapman, F., 2.
Red rock, Campine.—Lapparent, A. de, 5; Simoëns, G., 7 & 8; Stainier, X., 3.
Redonian.—Kerforne, F., 3; Lebesconte, P., 1.
Redruth (Cornwall).—Hill, J. B., 1.
Reed City (Mich.).—Preston, H. L., 2.
Reefs, Bendigo goldfield.—Cundy, W. H., 1.
Reifnigg (Styria).—Medanich, G., 1.
Reinschia.—Renault, B., 4.
Reitsburg (Orange R. Colony).—Hatch, F. H., 3.
Remopleurides.—Reed, F. R. C., 5.
Remouchamps (Liége).—Rahir, E., &c., 2.
RENARD, A. F. *See Obit.*, Geikie, Sir A., 1.
Rencheux (Belgium).—Delvaux, E., 1.
Rennes (Ille-et-Vilaine).—Bézier, T., 1.
Rensselœria.—Weller, S., 2.
Reptilia, Carboniferous.—Jækel, O., 2 & 3.
——, Cretaceous.—Beecher, C. E., 2; Clark, W. B., 1; Eaton, G. F., 2; Lambe, L. M., 1 & 2; Lucas, F. A., 1 & 2; Nopčsa, F. von, Jun., 2–4 & 6–7; Osborn, H. F., 4; Williston, S. W., 1–4.
——, evolution of.—Lydekker, R., 2.
——, flying.—Langley, S. P., 1.
——, Jurassic. — Andrews, C. W., 2; Fraas, E., 2; Gilmore, C. W., 1; Hatcher, J. B., 2; Knight, W. C., 3; Nopčsa, F. von, Jun., 5 & 8; Pauw, L. F. de, 1 & 2; Riggs, E. S., 1; Sheppard, T., 1; Thévenin, A., 1; Williston, S. W., 4.
——, life-habits of fossil. — Williston, S. W., 3.
——, Permian.—Case, E. C., 1 & 2.
——, Permo - Carboniferous. —Vaillant, L., 1.
——, Tertiary. — Andrews, C. W., 5; Fœrster, B., 5; Fraas, E., 3; Gerhardt, K., 1; Hay, O. P., 3; Lydekker,

R., 1; Sinclair, W. J., 1; Stefano, G. de, 3; Stehlin, H. G., 2; Stromer, E. von, 5.
Reptilia, Triassic.—Boulenger, G. A., 1; Broom, R., 1, 3, & 4; Frech, F., 1; Merriam, J. C., 1; Nopčsa, F. von, Jun., 1; Woodward, A. S., 7; Yakovlev, N., 3.
——, Wealden.—Andrews, C. W., 2; Dollo, L., 3.
——. *See also* Chelonia, &c.
Requienia.—Franchis, F. de, 1.
Retepora.—Maplestone, C. M., 1.
Reticularia.—Œhlert, D. P., 1.
Retzia.—Bittner, A., 1; Walther, K., 1.
Reuss glacier (Uri).—Penck, A., 1.
Rhabdocidaris.—Gauthier, V., 1 & 2; Loriol, P. de, 2.
Rhætic, Bornholm.—Mœller, H., 1.
——, Gloucestershire.—Richardson, L., 2 & 5; Tomes, R. F., 1.
——, Mendoza.—Bodenbender, G., 1.
——, occurrence of.—Frech, F., 1.
——, Rhenish Prussia.—Mueller, G., 1.
——, Savoy.—Preiswerk, H., 1.
——, Somerset.—Short, A. R., 1.
——, Worcestershire.—Richardson, L., 3.
Rhein-Hesse (Germany).—Schopp, H., 1.
Rhenish Bavaria.—Ammon, L. von, 1; Schalch, F., 1.
—— Devonian.—Maurer, F., 1.
—— Prussia.—Drevermann, F., 2; Walkhoff, O., 1.
—— -Schiefergebirge (Westphalia & Nassau).—Kaiser, E., 1.
Rhine River.—Andreæ, A., 5; Monckton, H. W., 5; Schumacher, E., 6.
—— ——, Pliocene.—Lamothe, R. de, 2.
—— Valley, Lower.—Kœnen, C., 1.
Rhinidictya.—Weller, S., 2.
Rhinoceros.—Bartolotti, C., 2; Depéret, C., 3; Lucas, F. A., 3; Venukov, P. I., 1.
Rhipidogyra.—Felix, J., 2; Longhi, P., 1.
Rhipidomella.—Tchernyshev, T., 1; Weller, S., 2.
Rhizomopteris.—Nathorst, A. G., 1.
Rhizophyllum.—Etheridge, R., Fil., 3.
Rhizopoterion.—Ungern-Sternberg, E. von, 1.
Rhodanomys.—Depéret, O., 3.
Rhodesia (S. Afr.).—Arber, E. A. N., 4; Hind, W., 3; Mennell, F. P., 1, 2 & 3; Molyneux, A. J. C., 1; Woodward, A. S., 10.
Rhodochrosite.—Johnsen, A., 1.
Rhodope Mts. (Turkey).—Hœrnes, R., 3.
Rhombopora.—Condra, G. E., 1.
Rhomboptera.—Weller, S., 2.
Rhön Mts. (Germany).—Blanckenhorn, M., 1; Buecking, H., 4; Wuest, E., 5.
Rhône R. (France).—Boistel, A., 1.
Rhynchonella.—Antula, J., 1; Bittner, A., 1; Drevermann, F., 2; Etheridge, R., Fil., 2; Gortani, M., 3; Remeš, M., 2; Tchernyshev, T., 1; Weller, S., 2.
Rhynchotreta.—Weller, S., 2.
Ribeirella & Ribeiria.—Schubert, R. J., 4.
Ribemont (Aisne).—Rabelle, —, 1.
Richmond (Va.).—Woodworth, J. B., 1 & 2.
Richmond Formation, Indiana.—Fœrste, A. F., 1; Ohio.—Nickles, J. M., 1.
Richmond R. (N.S.W.).—Mingaye, J. C. H., 2.
Rickardite.—Ford, W. E., 1.
Rico Mts. (Colo.).—Ransome, F. L., 1.
Ridgeway (Dorset).—Darwin, H., 1.
Riebeckite.—Butureanŭ, V. C., 2.
Ries (Würtemberg).—Fraas, E., 1; Schmidt, A., 1 & 2.
Riesengebirge (Silesia).—Berg, G., 1.
Rift-valleys.—Mennell, F. P., 3.
Rimella.—Cossmann, M., 2.
Ringicula.—Cossmann, M., 1.
Riva (Tyrol).—Tietze, E., 5.
River-curves.—Callaway, C., 2; Davis, W. M., 5; Ellis, T. S., 1.
—— -erosion.—Ball, J., 1; Hobbs, W. H., 3.
—— -robbing.—Fournier, E., 1; Mills, F. S., 2.
—— -terraces, California.—Hershey, O. H., 3 & 5.
—— -valleys, Almond buried.—Cadell, H. M., 2; permanence of.—Hill, E., 1.
Rivers, subterranean.—Fortin, R., 1; Fournier, E., 1; Van den Broeck, E., 15.
Riversdale Formation, Nova Scotia.—Ami, H. M., 2.
Road-metal.—Bock, J., 1; Claes, —, 1; I'Anson, J. C., 1.
Robache (Vosges).—Delépine, G., 1.
Rocamadour (Lot).—Viré, A., 1.
Rock-analyses.—Dittrich, M. 1; Gans, R., 1; Osann, A., 3.
—— -basins, Ontario.—Coleman, A. P., 1.
—— magmas. *See* Magmas.
—— metamorphism.—*See* Metamorphism, &c.
—— -sections, microscope.—Fedorov, E., 3; Souza-Brandão, V. de, 1; Stœber, F., 2; Canada balsam in thin sections.—Benedicks, C., 1; photography of.—Heineck, F., 1; Moss, W., 1; scratches on.—Jevons, H. S., 1.
Rockall (Atlantic).—Green, W. S., 1.
Rocks, action of ammonium-chloride on.—Clarke, F. W., 2.
——, electrical resistance of.—Angelis d'Ossat, G. de, 1.
——, fragmental.—Bonney, T. G., 1.
——, origin of.—Kohler, E., 2.
——, rigidity of.—Kusakabe, S., 1 & 2.
——, thermal conductivities of.—Peirce, B. O., 1.
——, volume-composition of.—Moore, C. C., 1.

Rocky Mts. (Alaska).—Schrader, F. C., 1; (Canada).—Bonney, T. G., 2, 6, & 11; Coleman, A. P., 3; Collie, J. N., 1; Woodward, H., 7; (U.S.A.).—Stobbs, L. S., 1.
Rodentia, Quaternary.—Nehring, A., 1.
——, Tertiary.—Ameghino, F., 5; Matthew, W. D., 4; Osborn, H. F., 3; Sinclair, W. J.
——. *See also* Mammalia.
Rome (Italy), R. School of Engineers.—Meli, R., 2.
——, Prov. of.—Moderni, P., 2; Verri, 5; Viola, C., 1.
Römerite.—Scharizer, R., 1.
Romingeria.—Beecher, C. E., 1; Weller, S., 2.
Ronzotherium.—Deninger, K., 1.
Rosa, Mte., Italian side of.—Dainelli, G., 2.
Roscommon (Ireland).—Kidston, R., 1.
Rosita (Colo.).—Welles, A. M., 1.
Rossboden Glacier (Simplon).—Schardt, H., 4.
Ross-shire (Scotland).—Clough, C. T., 2.
ROTHWELL, R. P. *See Obit.*, Raymond, R. W.
Rousses, Grandes, massif (Dauphiné).—Termier, P., 3.
Routivaara (Norrbotten).—Launay, L. de, 4.
Rovereto (Tyrol).—Tietze, E., 4.
Royat (Auvergne).—Brunhes, B., &c., 1.
Royston (Herts).—Woodward, H. B., 2 & 9.
Rubbiano (Emilia).—Sangiorgi, D., 1.
Rudistæ, Cretaceous.—Douvillé, H., 6, 7; Hilber, V., 1.
—— -limestone, Dalmatia. — Schubert, R. J., 3.
Rudolph (Prince) I.—Colomba, L. 1.
RUFFORD, P. J. *See Obit.*, Woodward, H., 13.
Ruhr R. (Westphalia).—Middelschulte, A., 1.
Rulac.—Knowlton, F. H., 1.
Rum, I. of (Hebrides).—Harker, A., 2.
Rumania.—Angelis d'Ossat, G. de, 7; Bergeron, J., 1; Butureanŭ, V. C., 1–3; Cadere, D., 1; Mrazec, L., 1; Nicolau, T., 1; Poni, P., 1; Sevastos, R., 1–4; Simionescŭ, J. T., 1–3; Uroshev, S., 1.
Rupelian, Belgium.—Forir, H., 1.
Russel Co. (Ontario).—Ells, R. W., 3.
Russia (Central).—Bogoslovski, N. A., 1; (S.).—Popov, S. P., 2; Sokolov, N., 1.
——. *See also* Ekaterinoslav, Urals, &c.
Russian Devonian fauna.—Schuchert, C., 4.
Rzeszów (Galicia).—Friedberg, G., 1.

Saba I. (W. I.).—Sapper, K., 9.
Sabbione Valley (Piedmont).—Roccati, A., I.
Sabero (Léon).—Mallada, L., 1.
Saccoblastus.—Hambach, G., 1.
Safet-Daria Valley (Bokhara).—Levat, E. D., 1.
Sagenodus.—Eastman, C. R., 1.
Sagenopteris.—Penhallow, D. P., 1.
Saghalin I. (Siberia).—Hawes, C. H., 1; Yabe, H., 1.
Sahara (Africa).—Hochreutiner, B. P. G., 1; Jourdy, E., 1.
Saint Christopher (W.I.).—*See* St. Kitts.
—— Erth (Cornwall).—Millett, F. W., 1.
—— Eustatius (W.I)..—Sapper, K., 9.
—— Gall (Savoy).—Lugeon, M., 1.
—— Gaudens (Haute-Garonne).—Carez, L., 7.
—— Girons (Ariège).—Carez, L., 5.
—— Helena (Atlantic).—Berg, G., 2.
—— Helen's I. (Canada).—Nolan, A.W., 1.
—— Kitts (W.I.).—Fels, G., 1; Sapper, K., 7.
—— Lawrence R. (N. Am.).—Upham, W., 5.
—— Lucia (W.I.).—Sapper, K., 5.
—— Martory (Haute-Garonne).—Carez, L., 4.
—— Minver (Cornwall).—Fox, H., 2.
—— Pierre (Martinique).—Lacroix, A., 2.
—— Pierre I. (Newfoundland).—Breton, —, Le, 1.
—— Thomas I. (Atlantic).—Berg, G., 2.
—— Vincent (W.I.).—Anderson, T., 1–5; Coppock, J. B., 1; Curtis, G. C., 1 & 3; Hœrnes, R., 6; Hovey, E. O., 1; Howe, E., 1; Klein, C., 1; Lacroix, A., 6, 8 & 9; Lobley, J. L., 1; Powell, H., 1 & 2; Sapper, K., 4 & 12; Spencer, J. W., 1, 2, & 4; Stuebel, A., 2; Supan, A., 1.
Salem (Ind.).—Ashley, G. H., &c.,1.
Salenia.—Loriol, P. de, 2.
Salenidia.—Lambert, J., 1.
Salisbury (Wilts).—Andrews, W. R., 1; Reid, C., 7.
—— (Tasmania).—Twelvetrees, W. H., 4.
Salix.—Engelhardt, H., 1; Knowlton, F. H., 1.
Salt, age of the earth &.—Mackie, W., 1.
——, blue rock-.—Ochsenius, C., 3.
——, Galicia.—Schrœter, A., 1.
——, Germany.—Lœwe, L., 1; Ochsenius, C., 1 & 4; Van't Hoff, J. H., 1–5.
——, India.—Grundy, J., 1.
——, influence in nature.—Walther, J., 2.
—— lakes, Yenisei Gov.—Ludwig, F., 1; Tolmashev, J. P., 2.
——, oceanic deposits. — Van't Hoff, 1–5.
——, origin of rock-.—Goodchild, J. G., 3.
——, Rumania.—Mrazec, L., 1.
——, United States.—Struthers, J., 11.
—— -water, Carboniferous.—Cornet, J 1; Gevers-Orban, E., 1.

Salt Range (Punjab).—Koken, E., 1–4; Lapparent, A. de, 3; Seeley, H. G., 1.
Saltpetre. — Flamand, G. B. M., 1; Grundy, J., 1.
Salvador (Central Am.).—Sapper, K., 2.
Salzburg (Austria). — Crammer, H., 1; Fugger, E., 1; Lorenz, J. von, 2; Tietze, E., 4.
Salzkammergut (Austria).—Mojsisovics, E. von, 2.
Samara Gov. (Russia).—Neustruev, S., 1.
Samarskite.—Barker, G. F., 1.
San Cristobal (Lower California). — Schmidt, C., 2; Schottler, W., 2.
—— Diego (Cal.).—Lakes, A., 10; Schaller, W. T., 1.
—— Juan Mts. (Mendoza). — Bodenbender, G., 1.
—— Luis Potosi (Mexico). — Manzano, J. P., 1.
—— Marino (Lombardy).—Salmojraghi, F., 1.
—— Orso (Venetia).—Oppenheim, P., 6.
—— Stefano del Comelico (Venetia).—Geyer, G., 1.
Sancerrois (France).—Raulin, V., 1.
Sand, absorption of liquids & gases.—Spring, W., 1.
—— -drifting, sedimentation &.—Hunt, A. R., 3.
—— - dunes, Towan Head.—Johnson, J. P., 1; Kennard, A. S., 1; *see also* Dunes.
——, Ille-et Vilaine.—Lechartier, G., 1.
——, mechanical analysis of.—Vinassa de Regny, P., 3.
——, Moselle R. volcanic.—Van Werveke, L., 2.
——, Paris Basin, granitic. — Dollfus, G., 1; Grossouvre, A. de, 4.
——, quartz-veins &.—Hunt, A. R., 2.
——, Yorkshire sea-.—Richardson, H., 1.
Sandfly R. (Tasmania). — Twelvetrees, W. H., 5.
Sandstones, analyses of British.—Anon., 34.
——, Bamberg, calcareous. — Barnes, J., 1.
——, Belgian.—Claes, —, 1.
——, Carpathian Gault.—Sevastos, R., 2.
—— dykes, Columbus (Ga.).—McCallie, S. W., 2.
——, Ireland.—Elsden, J. V., 8.
——, Moray-Firth Basin.—Mackie, W., 4.
——, Peel Red.—Gill, E. L., 1.
——, Superior, Lake.—Grant, U. A., 1.
——, Washington (U.S.A.).—Shedd, S., 1.
Sandwich Is. (Pacific). *See* Hawaii Is.
Santa Croce, Lake (Venetian Alps). — Longhi, P., 1.
—— Cruz Beds, Patagonia.—Scott, W. B., 1.
Santa Cruzian.—Ameghino, F., 6.
—— Eulalia Mines (Mex.).—Lakes, A., 8.
—— Lucia (Catalonia).—Œhlert, D. P., 1.
—— Maria de Meyá (Catalonia).—Zeiller, R., 2.
—— Maria del Rio (Mexico).—Manzano, J. P., 1.
—— Maria volcano (Guatemala).—Bergeat, A., 3; Brauns, B., 1; Sapper, K., 1.
Santander (Spain).—Cartailhac, E., 1.
Saône-et-Loire (France).—Chantre, E., 1; Delafond, E., 1.
Sapindus.—Knowlton, F. H., 1.
Sapphires, Queensland.—Dunstan, B., 1.
Sara Planina (Servia).—Petkov, M. K., 1; Petkov, V. K., 1.
Saratov Gov. (Russia).—Kalitzki, K., 1; Sinzov, I., 1.
Sardinia.—Dainelli, G., 3; Dannenberg, A., 1,; Lovisato, D., 1–3; Pampaloni, L., 2; Rimatori, C., 1 & 2; Tornquist, A., 4.
Sarlat (Dordogne).—Douvillé, H., 7.
Sarmatian, Austria. — Fuchs, T., 3; Steinmann, G., 3; Hungary. — Lœrenthey, E., 1; Rumania. — Simionescŭ, J., 1–3.
Sauranodon.—Gilmore, C. W., 1.
Savernake (Wilts).—Bird, C., 1 & 3.
Savona-Turin Railway (Liguria & Piedmont).—Sacco, F., 2.
Savoy (France).—Belloc, E., 1; Frech, F., 1; Girardin, P., 1; Haug, É., 4; Kilian, W., 1 & 6; Lugeon, M., 1 & 5; Mougin, P., 1; Sarasin, C., 1; Savin, L., 1; Zaccagna, D., 1.
Saxicava.—Dollfus, G. F., 6; Smith, J., 1.
Saxony.—Beck, R., 1; Dalmer, K., 2; Gæbert, C., 1.; Meissner, —, 1; Nessing, R., 1.; Petrascheck, W., 1; Wagner, P., 1.
Saybusch (Galicia).—Rzehak, A., 1.
Scales, reptilian.—Vaillant, L., 1.
Scandinavia.—Kœveslighethi, R. von, 1; Sernander, R., 2; *see also* Norway & Sweden.
Scania (Sweden).—Hennig, A., 1; Holst, N. O., 1; Kjellén, R., 3.
Scapanorhynchus.—Leriche, M., 1.
Scaphites.—Etheridge, R., Fil., 2; Hilber, V., 1; Wisniovski, T., 1.
Scapolite.—Pettard, W. F., 1.
Scarborough (Yorks).—Richardson, H., 1.
Scenery, Ceylon. — Coomáraswámy, A. K., 5; Cleveland.—Hawell, J., 1.
Scheelite.—Florence, W., 1; Pettard, W. F., 1.
Schemakha (Caucasus).—Andersson, F., 1.
Schiefergebirge (Thuringia).—Zimmermann, E, 2.
Schiosia-beds, Goritz, &c.—Hœrnes, R., 2.

Schira, Lake (Yenisei Gov.).—Tolmashev, I. P. 2.
Schismopora.—Maplestone, C. M., 1.
Schistoceras.—Smith, J. P., 1.
Schists, Aranyo Valley.—Pálfy, M. von, 1.
——, Ariège.—Caralp, J., 1.
——, Calais, Pas de, Carboniferous with.—Deville, Ste.-C., 1.
——, Colorado nodule-bearing.—Read, T. T., 1.
——, crystalline.—Hobbs, W. H., 5.
——, granite-diffusion into.—Greenly, E., 1.
——, Grisons.—Schmidt, C., 1.
——, Himalayas.—McMahon, C. A., 1 & 3.
——, metamorphism of.—Hunt, A. R., 7.
——, Mysore.—Jayaram, B., 1; Sambasiva Iyer, V. S., 1 & 2; Smeeth, W. F., 1; Wetherell, E. W., 1.
——, Ross-shire.—Clough, C. T., 2.
——, Rumania.—Nicolau, T., 1.
——, Vermont plicated.—Dale, T. N., 1.
Schizaster.—Gauthier, V., 1; Martelli, A., 1; Loriol, P. de, 2.
Schizodus.—Yakovlev, N., 1 & 4.
Schizoneura.—Etheridge, R., Fil., 4.
Schizophoria.—Tchernyshev, T., 1.
Schläfer tunnel, Wiesbaden.—Reinach, — von, 1.
Schlaggenwald (Bohemia).—Focke, F., 1.
Schleswig-Holstein (Germany).—Petersen, J., 1; Reinke, J., 1; Stolley, E., 1; Zeise, O., 1.
Schlotheimia.—Bistram, A. von, 1.
Schmalenseeia.—Moberg, J. C., 1.
Schnaitheim (Würt.).—Fraas, E., 2.
Schneeberg (Tyrol).—Weinschenk, E., 8.
Schönite. *See* Picromerite.
Schuchertites.—Smith, J. P., 1.
Schwagerina.—Gortani, M., 3.
Schwarzwald (Baden).—Keidel, H., 1; Schalch, F., 1; Steinmann, G., 2.
Schwarz-See (Valais).—Tornquist, A., 2.
Scobinella.—Casey, T. L., 1.
Scotland.—Anon., 18; Goodchild, J. G., 7 & 8; Johnston, T. N., 1; Lake, P., 1; Heddle, M. F., 1; Murray, Sir J., 1; Thomson, A. G. M., 1; *see also* Great Britain.
Scratches on thin rock-sections.—Jevons, H. S., 1.
Scurcola (Abruzzi).—Cassetti, M., 1.
Scutari, Lake (Albania).—Vinassa de Regny, P., 2.
Scylacosaurus.—Broom, R., 1.
Sea-bottom, Gulf of Manaar.—Lomas, J., 6.
——, influence on Flemish water-level.—Andrimont, R. d', 1.
——-saltness, age of the earth &.—Mackie, W., 5.
——, Sudan ancient.—Lapparent, A. de, 7.
——-water, density of.—Arçtowski, H., 4; Thoulet, J., 1.
Seals, Tertiary Italian.—Ugolini, R., 2.
Sebenico (Dalmatia).—Kerner, F. von, 6.
Secka (Siberia).—Ilovaïski, D., 1.
Sedbury Cliff (Gloucester).—Richardson, L., 2; Vaughan, A., 1.
SEDGWICK Museum, Cambridge.—Reed, F. R. C., 4; *see also* WOODWARDIAN.
Sedimentary deposits, manganese-dioxide &.—Mackie, W., 3.
—— ——, original form of.—Blake, J. F., 2.
—— ——, Patagonia.—Ameghino, F., 6.
—— ——, Rhodesia.—Molyneux, A. J. C., 1.
Sedimentation.—Hunt, A. R., 3; Joly, J., 1.
Seebpore (Bengal).—Grover, F., 1.
Seeds, Permo-Carboniferous.—Smedley, H. E. H., 1.
Seine R. (France).—Grossouvre, A. de, 2.
Seine-et-Oise (France).—Grossouvre, A. de, 1.
Seine-Infre. (France).—Fortin, R., 1.
Seismographs.—Credner, H., 1; Farr, C. C., 1; Hecker, O., 1; Lippmann, G., 1; Rudzki, M. P., 1; Tanakadate, A., 1.
Seismological Congress, 1903.—Montessus de Ballore, F. de, 4.
—— Observatory, Vesuvius.—Anon., 24.
—— stations, Gt. Britain & abroad.—Milne, J., 5.
Seismology.—Milne, J., 1; Wiechert, E., 1; *see also* Earthquakes.
Selbornian, Dorset.—Lang, W. D., 1.
Seligmannite.—Solly, R. H., 1.
SELWYN, A. R. C. *See Obit.*, Ami, H. M., 7 & 9; and Woodward, H., 4.
Sémha I. (Gulf of Aden).—Kossmat, F. 1.
Seminula.—Beede, J. W., 2.
Semionotus.—Eaton, G. H., 1.
Semmering Mt. (Lr. Austria).—Termier, P., 5.
Semna Cataract (Egypt).—Ball, J., 1.
Senaite.—Hussak, E., 2.
Sengwe (Rhodesia).—Molyneux, A. J. C., 1.
Senonian, Denmark.—Ravn, J. P. J., 1.
Septarian clay, Alsace-Lorraine.—Andreæ, A., 1.
Sequoia.—Knowlton, F. H., 1; Penhallow, D. P., 1; Zeiller, R., 3.
Serendibite.—Prior, G. T., 5.
Séreth Valley (Rumania).—Sevastos, R., 3.
Seringapatam (Mysore).—Wetherell, E. W., 1.
Serpentine, Greece.—Hilber, V., 2.
——, Maryland.—Clark, W. B., 4.
——, Washington (U.S.A.).—Shedd, S. 1; pseudo-, Washington.—Clarke, F. W., 1.
Serre Massif (Jura).—Bourgeat, —, 1.
Servia.—Bajetz, M. J., 1; Djlagoi, M. T., 1; Eletz, V. M., 1; Pavlov, P. S., 1 & 2; Petkov, M. K., 1; Petkov, V. K., 1; Peucker, K., 1; Vinassa de Regny, P., 2.

Sesami (Rhodesia).—Molyneux, A. J. C., 1.
Sette Comuni (Venetia).—Campana, D. del, 1.
Seward Peninsula (Alaska).—Collier, A. J., 1.
Sewerby (Yorks).—Lamplugh, G. W., 3.
Shales, Michigan.—Russell, I. C., 2.
——, tests for gold and silver in Kansas.—Lindgren, W., 2.
Shamrock, Mt. (Queensl.).—Ball, L. C., 1.
Shantung (China).—Crick, G. C., 1; Monke, H., 1.
Sharkham Point (Devon).—Hunt, A. R., 8.
Sharks, subfossil.—Eastman, C. R., 2.
Shawnee Formation, Kansas.—Beede, J. W., 3.
Shearing, secondary.—Clough, C. T., 2.
Shenley Hill (Beds).—Lamplugh, G. W., 7.
Shide (I. of Wight).—Milne, J., 1, 3, & 5.
Shimoga (Mysore).—Sambasiva Iyer, V. S., 2.
Shingle, Ault.—Bardou, —, 1.
——, Devon.—Hunt, A. R., 1.
Shoalhaven River (N.S.W.).—Thiele, E. O., 1.
Shore-changes, Wirral Peninsula.—Pickstone, W., 1.
—— concretions, Dutch Guiana.—Du Bois, G. C., 1.
—— deposits, Ille-et-Vilaine.—Lechartier, G., 1.
——-lines, French Tertiary.—Depéret, C., 2; *see also* Raised beaches &c.
Shotley (Suffolk).—Whitaker, W., 1.
Shrinkage, junction-bed disturbances &.—Lamplugh, G. W., 4.
Shropshire.—Cobbold, E. S., 1; Moore, H. C., 1.
Shumardia.—Reed, F. R. C., 5.
Shumardites.—Smith, J. P., 1.
Siberia (Asia).—Bordeaux, A., 1; Gerasemov, A. P., 1; Hawes, C. H., 1; Herz, O., 1; Ijitzki, N., 1 & 2; Ilovaïski, D., 1; Jaczewski, L., 1; Kaschen, N., 1; Krotov, P., 1; Launay, L. de, 3; Ludwig, F., 1; Meister, A., 1 & 2; Obruchev, V., 1; Peetz, H. von, 1; Tolmashev, I. P., 1 & 2; *see also* Gold, Coal, &c.
Sicily, I. of.—Lotz, H., 2; Pampaloni, L., 1; Seguenza, L., 1–3.
Siegen District (Westphalia & Nassau).—Drevermann, F., 1.
Siegen Schists.—Drevermann, F., 1.
Siegersdorf (Silesia).—Guerich, G., 1.
Siena (Tuscany).—Clerici, E., 2; Fucini, A., 3; Pantanelli, D., 1; Verri, A., 3.
Sierra Nevada, &c. *See* Nevada, &c.
Sigillaria.—Zalesski, M., 1.
Sikhim (Himalayas).—Freshfield, D. W., 1.
Silberberg (Bavaria).—Weinschenk, E., 8.
Silcrete.—Bonney, T. G., 5.
Silesia.—Berg, G., 1; Dathe, E., 1; Felix, J., 1; Guerich, G., 1 & 2; Illner, —, 1; Michael, R., 1; Scupin, H., 1; Uhlig, V., 1; Wisniovski, T., 1.
Silicates, action of ammonium-chloride on.—Clarke, F. W., 2.
Siliceous stratified rocks, origin of.—Meunier, S., 1.
Silicic acid, mountain-stream water with.—Headden, W. P., 1.
Silicified fossils, Algeria.—Fourtau, R., 2; Lot.—Douvillé, H., 8; trees, Sardinia.—Pampaloni, L., 2.
Siliceous rocks, chemistry of.—Morozevich, I., 1.
Sillian (Tyrol).—Geyer, G., 1.
Silurian, Belgium.—Malaise, C., 1 & 2.
——, Bohemia.—Zelízko, J. V., 1.
——, Britanny.—Barrois, C., 5; Kerforne, F., 1.
——, Calais (Pas-de-).—Barrois, C., 1.
—— Carboniferous contact, Liévin.—Desailly, —, 1.
——, Gotland, I. of.—Wiman, C., 1.
——, Herefordshire.—Callaway, C., 4.
——, Hesse.—Denckmann, A., 1.
——, Indiana.—Kindle, E. M., 1.
——, Ireland (N.E.).—Clark, R., 1.
——, Maryland.—Schuchert, C., 6.
——, New Jersey.—Weller, S., 2.
——, New York.—Prosser, C. S., 1; Schuchert, C., 3; Whitfield, R. P., 1.
——, Norrbotten.—Holmquist, P. J., 2.
——, Ohio.—Prosser, C. S., 2.
——, Saxony.—Dalmer, K., 2.
——, Shropshire.—Moore, H. C., 1.
——, Tennessee, &c.—Fœrste, A. F., 2 & 3.
——, Vermont.—Perkins, G. H., 1.
——, Victoria (Austral.).—Chapman, F., 1.
Silver, Canada.—Ingall, E. D., 2.
——, Chile.—Labastie, F., 1.
——, Colorado.—Lakes, A., 4 & 6; Ransome, F. L., 1.
——, Mexico.—Aguilera, J. G., 1; Blake, W. P., 2; Halse, E., 2; Lakes, A., 7, 1; Ordoñez, E., 3.
——, Mongolia.—Lyman, B. S., 2.
——, Montana.—Weed, W. H., 7.
——, New South Wales.—Beaumont, E. K., 1; Pittman, E. F., 1; Warren, J., 1.
——, Queensland.—Cameron, W. E., 2.
——, Sardinia.—Lovisato, D., 1.
——, Silesia.—Guerich, G., 2.
——, Tasmania.—Walker, G. A., 1 & 3.
——, Turkestan.—Levat, E. D., 1.
——, United States production.—Day, D. T., 1; Robarts, G. E., 1; *see also* Colorado, &c.
——, Washington.—Spurr, J. E., 1.
Silver Cliff (Colo.).—Welles, A. M., 1.
Silverton (Colo.).—Lakes, A., 4.
Simon-la-Veneuse (Vendée).—Chartron C., 1.

Simonyite.—Jæger, F. M., 1; *see also* Blödite.

Simplon Tunnel (Pennine Alps).—Giménez, J. V., 1; Schardt, H., 2 & 4; Spezia, G., 1.

Sinalosa (Mex.).—Weed, W. H., 2.

Sinjsko Polje (Dalmatia).—Kerner, F., 1.

Siphonalia.—Cossmann, M., 2.

Sirenia, Tertiary.—Delheid, É., 1.

Sjangeli (Norrbotten).—Holmquist, P. J., 1.

Skalička (Moravia).—Remeš, M., 1.

Skara (Gotland).—Munthe, H. H., 1.

'Skarn,' Prince of Wales I. (Alaska).—Thomæ, W. F. A., 1.

Skipton (Yorks.).—Smith, W. G., 1.

Skulls, mammalian.—Osborn, H. F., 1.

Skye, I. of (Scotland).—Harker, A., 1.

Slates, dolerite intrusive in.—Moore, C. C., 1.

——, Ireland.—Elsden, J. V., 8.

——, Witwatersrand.—Sawyer, A. R., 4.

Slattberg (Dalecarlia).—Lœfstrand, G., 1.

Slaty rocks, Beni-Toufout massif.—Termier, P., 4.

Slaughterbridge Beds, Cornwall.—Parkinson, J., 1.

Slavonia (Austria-Hungary).—Pavlov, P. S., 1.

Sligo, Co. (Ireland).—Cole, G. A. J., 6 & 7; Præger, R. L., 1.

Smilodectes.—Wortman, J. L., 1.

Smyrna (Asia Minor).—Yung, —, 1.

Snake-River Plains (Idaho).—Russell, I. C., 3 & 4.

Snow, Sweden.—Jansson, M., 1.

Snowdon (N. Wales).—Jehu, T. J., 1.

——, lakes, colour of water.—Dakyns, J. R., 1.

Soapstone, Mysore.—Primrose, A., 1; Sambasiva-Iyer, V. S., 2.

——, United States.—Pratt, J. H., 4.

Soda, carbonate of.—Van't Hoff, J. H., 3.

——, Mysore.—Sambasiva-Iyer, V. S., 2.

Sodbury (Gloucester).—Strahan, A., 1.

Sohland-a.-d.-Spree (Saxony).—Beck, R., 1.

Soils, analysis of.—Gans, R., 1.

——, Bohemia.—Hanamann, J., 1.

——, Cheshire.—Edwards, W., 2.

——, Dominica (W.I.).—Morris, Sir D., 1.

——, Dublin Co.—Lamplugh, G. W., 6.

——, Egypt.—Lucas, A., 1.

——, electrical resistance of.—Angelis d'Ossat, G. de, 1.

——, forestry &.—Bradfer, R., 1.

——, freezing of.—Bunge, —, 1.

——, frost &.—Roberts, M., 1.

——, humus &.—Hardy, M., 1.

——, Hungary.—Horusitzky, H., 1 & 2; Treitz, P., 1–3; Timko, E., 1.

Soils, Ille-et-Vilaine.—Lechartier, G., 1.

——, Maryland.—Clark, W. B., 3 & 4.

——, mechanical analysis of.—Schlœsing, T., Sen., 1; Vinassa de Regny, P., 3.

——, Nebraska.—Barbour, E. H., 1.

——, nitrogen &c. in.—Miller, N. H. J., 1.

——, Siberian frozen.—Tolmashev, I. P., 1.

——, Umbria.—Bortolotti, C., 1.

Sokotra I. (Gulf of Aden).—Blanford, W. T., 2; Kossmat, F., 1.

Solariidæ.—Seguenza, L., 3.

Solda Valley (Lombardy).—Bistram, A. von, 1 & 2.

Sölden (Tyrol).—Hess, H., 2.

Solen & *Solenocurtus.*—Dollfus, G. F., 6.

Solenomorpha.—Hind, W., 1.

Solenopora.—Maplestone, C. M., 1.

Solenopsis.—Cockerell, T. D. A., 1; Hind, W., 1; see also *Solenomorpha.*

Sologne (Orléanais).—Dollfus, G., 1; Grossouvre, A. de, 4.

Somaliland (Africa).—Arsandaux, H., 1.

Somerset.—Reid, C., 2; Small, E. W., 1; Vaughan, A., 2.

Somerville (Mass.).—Palache, C., 1.

Somme R. (France).—Bardou, —, 1.

Sonninia.—Burckhardt, C., 1.

Sonnwendgebirge (Tyrol).—Ampferer, O., 1.

Sonora (Mex.).—Weed, W. H., 2.

Sopra, Forni di (Carinthia).—Angelis d'Ossat, G. de, 5.

Sösdala (Scania).—Kjellén, R., 3.

Soufrière, La (Guadeloupe).—Lacroix, A., 5.

—— (St. Lucia).—Sapper, K., 5.

—— (St. Vincent).—Anderson, T., 1–5; Howe, E., 1; Klein, C., 1; Lacroix, A., 6, 8, & 9; *see also* St. Vincent, &c.

Southport (Lancs.).—Lomas, J., 2.

SOWERBY'S types.—Healey, M., 1.

Spain.—Caralp, J., 2 & 3; Maestre, A., 1; Sauvage, H. E., 1 & 2; Woodward, A. S., 4; Zeiller, R., 2; *see also* Catalonia, &c.

Spalato (Dalmatia).—Kerner, F., 2–4.

Spalax.—Nehring, A.

SPALLANZANI, L. *See* Capellini, G., 2.

'Spalte.' *See* Valleys, rift-.

Spanish Peak (Cal.).—Lawson, A. C., 2.

Sparnacian, Belgium.—Van Ertborn, O., 2.

Sparth (Lancs.).—Baldwin, W., 2.

Spathic iron-ore, Styria.—Taffanel, J., 1.

Specific gravity. *See* Gravity.

Sperrylite.—Goldschmidt, V., 2; Nicol, W., 1.

Spezia (Liguria).—Capellini, G., 2; Clerici, E., 1; Pellati, N., 1.

Sphærocystites.—Schuchert, C., 5.

Sphæroloculina.—Schick, T., 1.

Sphærulites.—Dacqué, E., 1; Hilber, V., 1.

Sphenia.—Dollfus, G. F., 6.
Sphenodiscus.—Solger, F., 1.
Sphenophyllum.—Nathorst, A. G., 1.
Sphenopteris.—Seward, A. C., 2; Zeiller, R., 2.
Sphenotus.—Drevermann, F., 2; Maurer, F., 1.
Sphenozamites.—Compter, G., 1.
Spherulitic structure, St. Minver coast.—Fox, H., 2.
Spielgarten (Baden).—Keidel, H., 1.
Spirangium.—Sauvage, H. E., 2.
Spirifer.—Œhlert, D. P., 1; Tchernyshev, T., 1; Walther, K., 1; Weller, S., 2.
Spiriferina.—Bittner, A., 1; Tchernyshev, T., 1.
Spirigera.—Bittner, A., 1.
Spiroloculina & *Spiroplecta.*—Liebus, A., 2.
Spitsbergen (Arctic).—Baun, A., 1; Kayser, E., 1; Yakovlev, N., 2.
Spizza (Dalmatia).—Bukowski, G. von, 1.
Spodumene.—Kunz, G. F., 4; Pettard, W. F., 1; Schaller, W. T., 1.
Spondylus.—Dacqué, E., 1; Shattuck, G. B., 1.
Sponge-gravel, Faringdon.—Lamplugh, G. W., 1.
Sponges, Cretacous.—Ungern-Sternberg, E. von, 1.
——, geological zones &.—Goodchild, J. G., 4.
——, Jurassic.—Bistram, A. von, 1.
——, Silurian.—Perkins, G. H., 1; Weller, S., 2.
Spores, Carboniferous plant-.—Sellards, E. H., 2.
Stachyotaxus.—Mœller, H., 1.
Stafford Limestone, N.Y.—Talbot, M., 1.
Staffordshire.—Anon., 28; Barrow, G., 1; Cadman, J., 1; Elsden, J. V., 8; Hind, W., 6 & 7; Stobbs, J. T., 1 & 3; Turner, E. P., 1.
Stansfield (Suffolk).—Whitaker, W., 1.
Stanton-Harcourt (Queensl.).—Ball, L. C., 1.
Start Point (Devon).—Hunt, A. R., 1.
Stassfurt (Germany).—Lœwe, L., 1; Ochsenius, C., 3; Van't Hoff, J. H., 1–5.
Stegaster.—Airaghi, C., 2.
Stegoceras.—Lambe, L. M., 2; Nopčsa, F. von, Jun., 5; Osborn, H. F., 4.
Stegosauria.—Lucas, A., 6.
Stegotherium.—Scott, W. B., 1.
Steinheim (Würt.).—Fraas, E., 3.
Steneofiber.—Depéret, C., 3.
Steneosaurus.—Thévenin, A., 1.
Stenogyra.—Felix, J., 2.
Stenometopon.—Boulenger, G. A., 1.
Stenonia.—Gauthier, V., 1.
Stenorrachis.—Nathorst, A. G., 2.
Stenosmilia.—Felix, J., 2.
Stenotatus.—Scott, W. B., 1.
Stephanocare.—Monke, H., 1.
Stereocephalus.—Lambe, L. M., 2; Osborn, H. F., 4.
Stereogenys.—Andrews, C. W., 1.
Stethacanthus.—Eastman, C. R., 1.
STEVENSON, J. *See Obit.*, Lapworth, C., 1.
Stibiodomeykite.—Kœnig, G. A., 1.
Stigmaria.—Poole, H. S., 1.
Stilbite.—Focke, F., 1.
Still Rivers (Conn.).—Hobbs, W. H., 3.
Stolzite.—Florence, W., 1.
Stomechinus.—Gauthier, V., 2.
Stone-implements, nephrite.—Wolff, F. von, 2; *see also* Implements.
—— -fall, Commission, Prussia. *See* Coal-fall.
——, fireclay with waterworn.—Sutcliffe, R., 1.
—— industries, Paris Exhibition, 1900.—Schafarzik, F., 7.
Stonyhurst (Lancs).—Hind, W., 1.
STOPES, H. *See Obit.*, Anon., 12.
Storeton Hill (Cheshire).—Beasley, H. C., 2.
Stow-on-the-Wold (Gloucester).—Richardson, L., 4.
Stramberg (Moravia).—Remeš, M., 1; Steinmann, G., 4 & 5.
Strasburg (Alsace).—Gerland, G., 1 & 3; Montessus de Ballore, F. de, 4; Weigand, B., 1.
Strata, movements of, Dorset.—Darwin, H., 1.
Strathy Point (Sutherland).—Greenly, E., 1.
Stratified siliceous rocks, origin of.—Meunier, S., 1.
Stratigraphical classification.—Prosser, C. S., 2; Safford, J. M., 1.
Streblodus.—Eastman, C. R., 1.
Streblopteria.—Drevermann, F., 2; Yakovlev, N., 4.
Strephochetus.—Perkins, G. H., 1.
Stretto (Dalmatia).—Schubert, R. J., 1–3.
Striastæonina.—Chartron, C., 1.
Striatopora.—Penecke, K. A., 1.
Striegau (Styria).—Sachs, A., 1.
Stripåsen (Svealand).—Tenow, O., 1.
Strobilus.—Fœrster, B., 5.
Strombus.—Cossmann, M., 1.
Stromeyerite.—Pettard, W. F., 1.
Strontianite.—Pratt, J. H., 12; Popov, S. P., 1.
Strontium-ores, U.S.A.—Day, D. T., 1.
Stropheodonta.—Chapman, F., 1; Weller, S., 2.
Strophomena.—Nickles, J. M., 1.
Struthiosaurus.—Nopčsa, F. von, Jun., 2.
Sturia.—Airaghi, C., 1.
Stylocœnia.—Osasco, E., 1.
Stylolites.—Reis, O. M., 1.
Stylophora.—Osasco, E., 1.
Stylophyllopsis.—Bistram, A. von, 1.
Styria (Austria).—Dreger, J., 1; Hœrnes, R., 1 & 7; Laska, W., 1; Redlich, K. A., 1; Taffanel, J., 1.

Succinea.—Wuest, E., 3 & 4.
Suczava (Moldavia). — Butureanŭ, V. C., 1.
Sudan (N. Africa).—Cohen, E., 2; Haug, E., 3; Lacoin, —, 1; Lapparent, A. de, 2, 6, 7 & 8; Linck, G., 6.
Sudbury (Ont.).—Dickson, C. W., 1.
Suez, Isthmus of.—Fourteau, R., 4.
Suffolk.—Bassett, H., Jun., 1; Jukes-Browne, A. J., 3; Monckton, H. W., 5; Whitaker, W., 1.
Sulphate of iron.—Scharizer, R., 1.
Sulphur, Chile.—Salcedo, J. V., 1.
——, crystallization of. — Baumhauer, H., 1.
——, Paris, native.—Meunier, S., 3.
——, Russia.—Shkljarevski, A., 1; Vernadski, V. S., 1.
——, Siena.—Pantanelli, D., 1.
—— springs, Dominica.—Sapper, K., 8; Sta. Lucia.—Sapper, K., 5.
Sulz unterm Wald (Alsace). — Herrmann, A., 1.
Sulza (Thuringia).—Henkel, L., 2.
Sumatra (D. E. I.).—Neeb, E. A., 1; Truscott, J., 1.
Summit Co. (Colo.).—Lakes, A., 1.
Sundgau (Alsace). — Fœrster, B., 1–3; Klæhn, G., 1.
Sunspots, volcanic eruptions &.—Jensen, H. I., 1.
Superior, Lake (N. Am.).—Birkinbine, J., 1; Grant, U. A., 1; Vattier, C., 1.
Surinam (Dutch Guiana).—Du Bois, G. C., 1.
Surrey. — Coomáraswámy, A. K., 3; Monckton, H. W., 3 & 5.
Surveys. *See* Geological Surveys.
Sussex.—Dawson, C., 1; Dixon, H. B., 1; Monckton, H. W., 5; Reid, C., &c., 5 & 6; Thorpe, T. E., 1; Woodward, H. B., 11.
Sutherland. — Goodchild, J. G., 11; Greenly, E., 1.
Sutherland Division (Cape Colony).—Rogers, A. W., 5.
Sutlej Valley (Himalayas).—McMahon, C. A., 1 & 3.
Svappavaara (Norrbotten).—Launay, L. de, 4.
Svealand (Sweden).—Sernander, R., 3; Tenow, O., 1.
Sveltia.—Cossmann, M., 2.
Swabia.—Schick, T., 1; Schmierer, T., 1.
Sweden.—Andersson, G., 1; Kjellén, R., 1–3; Lagerheim, G., 1 & 2; Munthe, H., 2; Sernander, R., 1–3; maps of, 1600–1850.—Lœnborg, S., 1; *see also* Scandinavia, &c.
Swedish Antarctic Expedition. — Andersson, G., 3.
Swellendam (Cape Colony).—Rogers, A. W., 2.
Switzerland. — Burcart, E., 1; Kæch, M., 1; Lugeon, M., 1 & 3–5; Muehlberg, 1–3; Preller, C. S. du R., 1; Rollier, L., 1 & 3; Schardt, H., 6; Schmierer, T., 1.
Sydenham (Victoria, Austral.).—Hart, T. S., 1.
Sydney (N.S.W.).—Mingaye, J. C. H., 3.
Syenite, Canada. — Adams, F. D., 3; Miller, W. G., 1.
——, Charnwood.—Watts, W. W., 1; Woodward, H. B., 6.
——, Crete.—Cayeux, L., 4.
——, Tasmania. — Twelvetrees, W. H., 12.
——, Tyrol.—Ippen, J. A., 6; Romberg, J., 1.
Sylt (Frisian Is.). — Martin, J., 1; Petersen, J., 1.
Sylvana-limestone. See *Helix.*
Syncyclonema.—Etheridge, R., Fil., 2: Hind, W., 4.
Syria (Asia Minor). —Blanckenhorn, M., 2 & 4; Hilber, V., 1.
Szeged (Hungary).—Treitz, P., 2.

Taberg (Norrbotten).—Launay, L. de, 4.
Table Mt. (Cape Colony).—Anon., 36.
Taconic Range (N. Y., Vermont, &c.).—Hobbs, W. H., 6.
Tacora (Chile).—Salcedo, J. V., 1.
Tæniopteris.—Zeiller, R., 1.
Tagliacozzo (Abruzzi).—Cassetti, M., 1.
Tainton Downs (Oxon).—Walford, E. A., 1.
Talabor Valley (Hungary).—Posewitz, T., 1.
Talc, United States.—Pratt, J. H., 4.
Tamanite.—Popov, S. P., 3.
Taminick (Victoria).—Kitson, A. E., 2.
Tanganyika, Lake (Equatorial Africa).—Blanford, W. T., 1; Mennell, F. P., 3; Moore, J. E. S., 1.
Tapirus.—Ameghino, F., 2.
Tarascon-sur-Ariège (Ariège). — Carez, L., 7.
Tarija Valley (Buenos Aires). — Ameghino, F., 2; Nordenskjœld, E., 1 & 2.
Tarkwa (Gold Coast).—Sawyer, A. R., 6.
Tarn-et-Garonne (France).—Martel, E. A., 5.
Tarnócz (Hungary).—Koch, A., 4.
Tasmania.—Coghlan, T. A., 1; Gregory, J. W., 1 & 4; Hall, T. S., 1; Pettard, W. F., 1; Stephens, T., 1; Stewart, H., 1; Twelvetrees, W. H., 1–12; Waller, G. A., 1–4.
Tatarka R. (Siberia).—Meister, A., 1.
TATE, R. *See Obit.*, Hutton, F. W., 1.
Tatella.—Etheridge, R., Fil., 2.
Tatra Mts. *See* Carpathians.
Tauern, Hohe (Tyrol).—Termier, P., 6.
Tauern Tunnel (Tyrol).—Berwerth, F., 3.
Taunus Mts. (Germany). — Buecking, H., 5; Delkeskamp, R., 1; Reinach, — von, 1.
Taurida (S. Russia).—Sokolov, N., 1.
Taurus Mts. (Anatolia).—Penecke, K. A., 1; Schaffer, F. X., 1–3.
Tay Basin (Scotland). — Murray, Sir J., 1.
Taxites.—Mœller, H., 1.

Taxodium.—Knowlton, F. H., 1.
Tchad, Lake (Sudan).—Lacoin, —, 1.
Tea-Green Marls, Keuper age of.—Richardson, L., 2.
Teesdale (Durham, &c.).—Clough, C. T., 1; I'Anson, J. C., 1.
Teeth, Jurassic reptilian.—Gilmore, C. W., 1.
Tegulifera.—Tchernyshev, T., 1.
Tehuelche system, Patagonia.—Ameghino, F., 6.
Teign Valley (Devon).—Lowe, H. J., 1; Somervail, A., 1.
Teinistion.—Monke, H., 1.
Telek Alsó (Hungary).—Halaváts, J., 1.
Tellina.—Casey, T. L., 1.
Tellina Valley (Lombardy).—Brugnatelli, L., 1; Hammer, W., 1; Hecker, O., 2.
Telluride (Colo.).—Lay, H. C., 1.
Tellurides, W. Australia.—Spencer, L. J., 1.
Telmatosaurus.—Nopčsa, F. von, Jun., 4.
Temnocheilus.—Franz, V., 1.
Tennantite.—Pettard, W. F., 1.
Tennessee (U.S.A.).—Fœrste, A. F., 2 & 3; Kemp, J. F., 3; McCallie, S. W., 1; Safford, J. M., 1 & 2.
Teratorhynchus.—Reed, F. R. C., 15.
Tercis (Landes).—Arnaud, H., 1.
Terebratula.—Antula, J., 1; Bittner, A., 1; Gortani, M., 3; Lamplugh, G. W., 1.
—— -limestone, Sokotra.—Kossmat, F., 1.
Terebratulina.—Kossmat, F., 1.
Terebratuloidea.—Tchernyshev, T., 1.
Terlingua (Tex.) & Terlinguaite.—Moses, A. J., 1.
Terneuzen (Flanders).—Brouwer, M. de, 1.
Terni (Umbria).—Lotti, B., 1.
Terraces, Klamath Region.—Hershey, O. H., 2; Séreth Valley.—Sevastos, R., 3.
——, river-.—Hershey, O. H., 5; Mills, F. S., 2.
Terrapene.—Hay, O. P., 1.
Tertiary, Algeria.—Ritter, É., 1.
——, Alpes-Maritimes.—Riaz, A. de, 2.
——, Alsace-Lorraine.—Andreæ, A., 1–5; Fœrster, B., 1, 2; Herrmann, A., 1.
——, Argentina.—Ameghino, F., 2.
——, Asia Minor.—Schaffer, F. X., 1–3; Toula, F., 1.
——, Austria (Lr.).—Abel, O., 3; Fuchs, T., 1–5.
——, Baluchistan.—Nœtling, F., 1.
——, Bavaria.—Blanckenhorn, M., 1.
——, Belgium.—Forir, H., 1; Rutot, A., 4; Seward, A. C., 5; Van Ertborn, O., 1 & 6.
——, Berkshire.—Blake, J. H., 1; Monckton, H. W., 5.
——, Britanny.—Kerforne, F., 3; Lebesconte, P., 1.
——, California.—Lucas, F. A., 7.
Tertiary, Cameroons.—Oppenheim, P., 1.
——, classification of.—Dollfus, G. F., 3.
——, Crete.—Cayeux, L., 3.
——, Croatia.—Gorjanović-Kramberger, K., 2.
——, Dakota.—Lucas, F. A., 3.
——, Egypt.—Blanckenhorn, M., 2; Pachundaki, D. E., 1; Stromer, E. von, 2.
——, Florida.—Dall, W. H., 3.
——, Galicia.—Rzehak, A., 1; Szajnocha, W., 1.
——, Hants Basin.—Ormerod, H. A., 1.
——, Hungary.—Lœrenthey, E., 1; Telegd, L. R. von, 1.
——, Italy.—Fornasini, C., 1; Nelli, B., 1; Stefano, G. de, 4; Viola, C., 1; *see also* Piedmont, &c.
——, Karikal.—Cossmann, M., 2.
—— land-mollusca, Oppeln.—Michael, R., 2.
——, Lombardy.—Salmojraghi, F., 1.
——, Mainz.—Schuster, W., 1; Steuer, A., 2.
——, Maryland.—Clark, W. B., 4.
——, Meiningen.—Wuest, E., 5.
——, Mississippi, &c.—Dall, W. H., 1–3; Hilgard, E. W., 1; Smith, E. A., 2.
——, Montana.—Rowe, J. P., 1.
——, Moravia.—Fuchs, T., 4.
——, New England Plateau (N.S.W.).—Andrews, E. C., 1.
——, Norfolk, &c.—Elsden, J. V., 5; Monckton, H. W., 5; Rutot, A., 4.
——, Oregon.—Washburne, C., 1.
——, Paris Basin.—Dollfus, G. F., 5; Leriche, M., 3; Ramond, G., 2.
——, Patagonia.—Ameghino, F., 6; Tournouër, A., 1.
——, Persia.—Douvillé, H., 2.
——, Piedmont.—Patrini, P., 1.
——, Podolia.—Venukov, P. I., 1.
——, Provence.—Depéret, C., 2.
——, Rumania.—Angelis d'Ossat, G. de, 7; Sevastos, R., 1; Simionescŭ, J., 1.
——, Sardinia.—Dainelli, G., 3.
——, Servia.—Pavlov, P. S., 1 & 2.
——, Sicily.—Seguenza, L., 1–3.
——, Slavonia.—Pavlov, P. S., 1.
——, Styria.—Hœrnes, R., 1.
——, Sudan.—Lapparent, A. de, 2 & 8.
——, Suffolk.—Bassett, H., Jun., 1.
——, Surrey.—Monckton, H. W., 3 & 5; Rutot, A., 4.
——, Switzerland.—Gerber, E., 1; Rollier, L., 3; Stehlin, H. G., 1.
——, Tunisia.—Pervinquière, L., 1.
——, Tuscany.—Ugolini, R., 1 & 3.
——, Tyrol.—Dreger, J., 2.
——, Umbria.—Verri, A., 1.
——, Vaucluse.—Châtelet, C., 1.
——, Venetia.—Gortani, M., 1–3; Oppenheim, P., 6; Patrini, P., 1.
——, Victoria (Austral.).—Dennant, J., 3; Pritchard, G. B., 1.
——, Vienna Basin.—Fuchs, T., 6.
——. *See also* Miocene, &c.

Testudo.—Andrews, C. W., 5; Fœrster, B., 5 & 7; Hay, O. P., 1.
Tetragonites.—Yabe, H., 1.
Tetrahedrite. — Pettard, W. F., 1; Schweitzer, J., 1.
Tetraploporella.—Steinmann, G., 5.
Teutoburg Forest (Germany).—Stille, H., 2.
Tewkesbury (Gloucester).—Richardson, L., 5.
Texas (U.S.A.).—Case, E. C., 1 & 2; Eldridge, G. H., 1; Hill, B. F., 1; Kilian, W., 3; Lucas, A. F., 1; Matthew, W. D., 1; Shattuck, G. B., 1; Stanton, T. W., 1; Sternberg, C. H., 1 & 2; Stœk, H. H., 1; Taff, J. A., 1; Whitfield, R. P., 1.
Textularia.—Fornasini, C., 1.
Thacosiphonia-nobilis zone.—Schrammen, A., 1.
Thalassemys.—Fraas, E., 2.
Thalassochelys.—Stefano, G. de, 2.
Thames R. (England).—Fitzmaurice, M., 1; Haige, A. H., 1; Thames Valley.—Kennard, A. S., 2; Newton, E. T., 2; Pocock, T. I., 1; Warren, S. H., 1.
Thamnastræa.—Felix, J., 2.
Thamnophyllum.—Penecke, K. A., 1.
Thebes (Egypt).—Oppenheim, P., 3.
Thecocyrtina & *Thecospira.*—Bittner, A., 1.
Thecosmilia.—Osasco, E., 1.
Thedford (Ont.).—Shimer, H. W., 1.
Theralite.—Bauer, F., 1.
Theriodontia, Triassic.—Broom, R., 1.
Thermal conductivity, rock.—Peirce, B. O., 1.
—— waters, Carlsbad.—Prinz, W., 1 & 3; earth's crust &.—Hoffmann, J. F., 1.
Theux (Liége).—Fourmarier, P., 1 & 3.
Thim, J. Van S. *See Obit.*, Firket, A., 1.
Thinnfeldia.—Etheridge, R., Fil., 1.
Thomsonite.—Schalch, F., 1.
Thorium-minerals.—Barker, G. F., 1.
Thornwick Bay (Yorks).—Richardson, H., 1.
Thracia.—Dollfus, G. F., 6.
Thuites.—Knowlton, F. H., 1.
Thunder Mts. (Idaho).—L'Hame, W. E., 1.
Thuringia (Germany).—Henkel, L., 2 & 3; Kolesch, K., 1; Luedecke, O., 1; Ochsenius, C., 1; Schuetze, E., 1; Wuest, E., 3, 4, & 5; Zimmermann, E., 1 & 2.
Thylax.—Renault, B., 4.
Tian-Shan Mts. (Central Asia).—Friedrichsen, M., 2.
Tibet (Asia).—Futterer, K., 2.
Ticino (Switzerland).—Bistram, A. von, 1 & 2.
Tiflis Gov. (Russia).—Mushketov, J., 1.,
Timan Mts. (Russia).—Tchernyshev T., 1.
Tin, Australia (W.).—Krusch, P., 1.
Tin, Brittany.—Kerforne, F., 5.
——, Celebes.—Koperberg, M., 1.
——, Cornwall.—Flett, J. S., 1.
——, Malay Peninsula.—Penrose, R. A. F., Jun., 1.
——, Queensland.—Cameron, W. E., 1.
——, Sumatra.—Neeb, E. A., 1.
——, tourmaline &.—MacAlister, D. A., 1.
Tinguaite, Tyrol.—Ippen, J. A., 1.
Tintagel Head (Cornwall).—Parkinson, J., 1.
Tiree (Hebrides).—Coomáraswámy, A. K., 4.
Tirerrill (Sligo).—Cole, G. A. J., 6 & 7.
Tirlian (Ufa Gov.).—Kovalev, P., 1.
Tissotia.—Dacqué, E., 1.
Tisza R. (Hungary).—Treitz, P., 2.
Titaniferous iron-sand, Caernarvon.—Cope, T. H., 1.
—— minerals, rocks with.—Thuerach, H., 1.
—— pyroxene.—Winchell, A. N., 4.
Titanite.—Bœris, G., 1; Zambonini, F., 3.
Titanium-ores, United States.—Day, D. T., 1; Snelling, W. O., 1.
Titano, Mte. (Lombardy).—Salmojraghi, F., 1.
Titanomys.—Depéret, C., 3.
Titanotheres, extinction of.—Andrews, C. W., 2.
——, Oligocene.—Osborn, H. F., 2.
Tithonian, Moravia.—Remeš, M., 1; Steinmann, G., 4 & 5.
Tmetoceras.—Burckhardt, C., 1.
Toadstone-bed, Derbyshire.—Moore, S., 1.
Toarcian, Worcestershire.—Buckman, S. S., 1 & 2; Hull, F., 1.
Todea.—Seward, A. C., 6.
Tokyo (Japan).—Omori, F., 3 & 4.
Tollesbury (Essex).—Holmes, T. V., 3.
Tomsk (Siberia).—Kaschen, N., 1; Peetz, H. von, 1; Tanfiliev, G. I., 1.
Tonalites, Lombardy.—Salomon, W., 1,
Tonga Group (Pacific).—Skeats, E. W., 1.
Tongrian, Belgium.—Forir, H., 1.
——, Britanny.—Bézier, T., 1.
Topangalva (Hungary).—Pálfy, M. von 1.
Tor Bay (Devon).—Hunt, A. R., 8.
Torbernite.—Buchholz, Y., 1.
Torda (Transylvania).—Gesell, A., 1.
Toretocnemus.—Merriam, J. C., 1.
Torishima (Japan).—Kutschera, M., 1.
Tornea Lake (Norrbotten).—Holmquist, P. J., 2; Tœrnebohm, A. E., 1.
Tornoceras.—Smith, J. P., 1.
Toroczko (Transylvania).—Telegd, L. R. von, 1.
Torreglia (Venetia).—Squinabol, S., 2.
Torridonian, I. of Rum.—Harker, A., 2.
Tortoises, Tertiary.—Andrews, C. W., 5; Lydekker, R., 1; Sinclair, W. J., 1; *see also* Chelonia.
Touat (Algeria).—Flamand, G. B. M., 1.

Toulon (Provence).—Répelin, J., 1.
Toulouse (Languedoc). — Michel-Lévy, A., 1.
Touraine (France).—Lambert, J., 2.
Tourmaline, Dartmoor.—Worth, R. H., 1; Scotland.—Goodchild, J. G., 7; Tasmania.—Waller, G. A., 4.
——, tin &.—MacAlister, D. A., 1.
Tournai (Hainault).—Delépine, G., 2; Leriche, M., 2.
Towan Head (Cornwall).—Johnson, J. P., 1; Kennard, A. S., 1.
Toxaster.—Loriol, P. de, 2; Pellat, E., 2.
Trachodon.—Osborn, H. F., 4.
Trachyceras.—Airaghi, C., 1.
Trachydolerite, Tasmania.—Twelvetrees, W. H., 1.
Trachypora.—Weller, S., 2.
Trachyte, New South Wales.—Andrews, E. C., 2; Card, G. W., 3.
Tracks, worm-, &c.—Ami, H. M., 3; Bonney, T. G., 2 & 6; Walther, J., 1.
Transkei District (Cape Colony). — Rogers, A. W., 3 & 6.
Transported gravel, Baltic coast. — Geinitz, E., 2.
Transvaal (S. Africa).—Black, W. G., 1; Hammond, J. H., 1; Hatch, F. H., 1 & 2; Sawyer, A. R., 1, 3, 4, & 5; Weldon, H., 1 & 2.
Transylvania (Hungary).—Gesell, A., 1; Nopčsa, F. von., Jun., 1; Pálfy, M. von, 1; Telegd, L. R. von, 1; Vernadski, V. S., 3.
Trau (Dalmatia).—Kerner, F. von, 6.
Tredorn Beds, Cornwall.—Parkinson, J., 1.
Tree in a Colorado fissure-vein, 1000 ft. deep.—Lakes, A., 9.
Treisa (Hesse).—Chelius, C., 1.
Tremadoc (Merioneth).—Fearnsides, W. G., 1.
Trenton (N.J.).—Hrdlička, A., 1.
—— Limestone, Ottawa. — Whiteaves, J. F., 1.
Triænoceras.—Drevermann, F., 3.
Trias, Alsace-Lorraine.—Fliche, P., 4; Meyer, G., 1; Schaller, J., 1; Schumacher, E., 4; Steuer, A., 1.
——, Ariège.—Carez, L., 4.
——, Bavaria.—Henkel, L., 3.
——, Biarritz. — Carez, L., 6; Seunes, J., 1.
——, Bosnia.—Bittner, A., 1.
——, California.—Merriam, J. C., 1.
——, Carnic Alps.—Tommasi, A., 1.
——, China.—Schellwien, E., 1.
——, Crete.—Cayeux, L., 6.
——, Dakota.—Richardson, G. B., 1.
——, Dalmatia.—Bittner, A., 1; Kittl, E., 1.
——, Devon.—Bonney, T. G., 7; Somervail, A., 2 & 3.
——, Elgin.—Boulenger, G. A., 1.
——, Franche Comté.—Piroutet, M., 2.
——, Hungary.—Papp, C., 1.
——, Leicester.—Fox-Strangways, C., 1; Watts, W. W., 1.
Trias, Naumburg.—Henkel, L., 1.
——, New England.—Hobbs, W. H., 6.
——, occurrence of.—Frech, F., 1.
——, Oregon.—Washburne, C., 1.
——, Sardinia.—Lovisato, D., 3.
——, Servia.—Eletz, V. M., 1.
——, Thuringia. — Henkel, L., 2 & 3; Kolesch, K., 1; Ochsenius, C., 1.
——, Tunisia.—Pervinquière, L., 1.
——, Tuscany.—Angelis d'Ossat, G. de, 3; Fucini, A., 3.
——, United States.—Hobbs, W. H., 3.
——, Venetia.—Bittner, A., 1; Oppenheim, P., 6.
——. *See also* Keuper, Rhætic, &c.
Triassic fossils, Nova-Scotian boulder-clay with.—Haycock, E., 1.
—— landscape, buried, Charnwood. — Watts, W. W., 1; Woodward, H. B., 6.
—— pebble-beds, S. Devon & Midlands. —Hunt, A. R., 5; Shrubsole, O. A., 1.
Trienbach (Alsace-Lorraine). — Zeiller, R., 1.
Trient (Tyrol). — Dal Piaz, G., 1 & 2; Oppenheim, P., 6; Tietze, E., 4.
Triest (Austria).—Mazelle, E., 1.
Trigonia. — Burckhardt, C., 1; Etheridge, R., Fil., 2; Kitchin, F. L., 1; Lucas, F. A., 3; Newton, R. B., 1; Paulcke, W., 1; Shattuck, G. B., 1.
Trigonostoma.—Cossmann, M., 2.
Trilobites, Cambrian. — Etheridge, R., Fil., 1; Monke, H., 1; Weller, S., 2; Woodward, H., 7.
——, Carboniferous. — Illés, V., 1; Parkinson, H., 1; Reed, F. R. C., 2.
——, Devonian. — Drevermann, F., 2; Maurer, F., 1; Walther, K., 1; Weller, S., 2; Woodward, H., 1.
——, eyes of.—Spencer, W. K., 1.
——, Silurian.—Hall, T. S., 2; Moberg, J. C., 1; Reed, F. R. C., 1 & 5; Weller, S., 2.
Trinidad (Colo.).—Hill, R. T., 1.
Trinidad (W.I.).—Anon., 20; Gordon, J. W., 1; Guppy, R. J. L., 1.
Trinucleus.—Reed, F. R. C., 5.
Triomphalia.—Dollfus, G. F., 6.
Trionyx.—Lœrenthey, E., 2; Rutot, A., 5.
Triplite.—Nordenskjœld, I., 1.
Trocharion & *Trochictis.*—Major, C. I. F., 1.
Trochidæ.—Seguenza, L., 3.
Trochocyathus.—Felix, J., 2; Oppenheim, P., 6.
Trochoseris.—Osasco, E., 1.
Trochosmilia.—Felix, J., 2; Shattuck, G. B., 1.
Trochus.—Dainelli, G., 3; Shattuck, G. B., 1; Wollemann, A., 1.
Troitsk (Urals).—Duparc, L., 4.
Tropea (Calabria).—Lojacono, M., 1.
Tshelekenj I. (Caspian Sea). — Shkljarevski, A., 1.
Tubulostium.—Weller, S., 1.
Tuff, Italy.—Fantappié, L., 1.

Tuff, St. Vincent.—Howe, E., 1.
——, Würtemberg.—Endriss, K., 1.
Tuli (Rhodesia).—Molyneux, A. J. C., 1.
Tulln (Lr. Austria).—Abel, O., 3.
Tullstorp (Scania).—Holst, N. O., 1.
Tumilat, Wadi (Egypt).—Lucas, A., 1.
Tumkar (Mysore).—Primrose, A., 1; Wetherell, E. W., 3.
Tungsten.—Hobbs, W. H., 1; Pratt, J. H., 3.
Tunisia (N. Africa).—Meunier, S., 16; Pervinquière, L., 1; Stefano, G. de, 2; Termier, P., 2.
Tunnel, Baker Street-Waterloo Railway.—Haige, A. H., 1; Ligurian Apennine.—Rovereto, G., 1; Meudon.—Ramond, G., 1; Simplon.—Giménez, J. V., 1; Schardt, H., 2; Tauern.—Berwerth, F., 3; Taunus.—Reinach, — von, 1.
Turgite.—Samoïlov, J., 4.
Turin-Savona Railway (Piedmont & Liguria).—Sacco, F, 2.
Turkestan (Asia).—Levat, E. D., 1 & 2.
Turkey (European).—Gounot, A., 1; Hilber, V., 2; Hœrnes, R., 3; Peucker, K., 1; Vinassa de Regny, P., 2.
Turnerite.—Pohl, O., 1.
Turonian, Egypt.—Fourtau, R., 3.
Turritella.—Cossmann, M., 1; Shattuck, G. B., 1.
Turtle Mt. (Alberta Terr.).—Brewer, W. M., 2; Lakes, A., 11.
Turtles, Tertiary.—Hay, O. P., 3.
Tuscany.—Angelis d'Ossat, G. de, 3; Barsanti, L., 1; Clerici, E., 1 & 2; Dainelli, G., 1; Elsden, J. V., 9; Fucini, A., 1 & 3; Lotti, B., 2 & 3; Pantanelli, D., 1; Regàlia, E., 1; Ristori, G., 1; Sacco, F., 3; Trabucco, G., 1; Ugolini, R., 1 & 3; Verri, A., 3, 4, & 6; Zambonini, F., 4.
Tweed Valley.—Goodchild, J. G., 2.
Tympanotomus.—Hœrnes, R., 1.
Types, D'Archiac.—Thévenin, A., 2.
——, Geol. Soc. Mus.—Blake, J. F., 1.
——, refigured.—Œhlert, D. P., 2.
——, Sowerby's.—Healey, M., 1.
Typha.—Engelhardt, H., 1.
Typhis.—Cossmann, M., 2.
Tyroglyphites.—Pampaloni, L., 1.
Tyrol (Austria).—Ampferer, O., 1, 2, & 3; Blaas, J., 1; Dal Piaz, G., 1; Dreger, J., 1; Fabian, K., 1; Frech, F., 1; Geyer, G., 1 & 2; Gordon, M. M. O., 1; Greim, G., 1; Guenther, S., 1; Hammer, W., 2; Hess, H., 2; Hezner, L., 1; Ippen, J. A., 1–7; Kossmat, F., 2; Oppenheim, P., 6; Pohl, O., 1; Romberg, J., 2; Tietze, E., 4; Termier, P., 6; Weinschenk, E., 2 & 8; Wolff, F. von, 1.
Tyson, J. W. *See Obit.*, Glenn, W., 1.

Ufa Gov. (Russia).—Kovalev, P., 1.
Uganda (Equatorial Africa).—Prior, G. T., 2.
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Unio.—Stanton, T. W., 1.
—— -tracks.—Walther, J., 1.
Union Formation, Nova Scotia.—Ami, H. M., 2.
United States.—Blake, W. P., 4; Hayes, C. W., 1; Jones, T. R., 1; Mabery, C. F., 1; Walcott, C. D., 1–2, 5, & 6.
——, mineral resources.—Day, D. T., 1.
——. *See also* Devonian, Iron, &c.
Upsala (Svealand).—Sjœgren, H., 1.
Ural Mts. (Russia).—Bertrand, M., 1; Duparc, L., 1, 2, & 4–7; Ilovaiski, D., 1; Mamontov, V. N., 1; Penck, A., 1; Surgunov, N., 1; Tchernyshev, T., 9.
Uranite.—Buchholz, Y., 1.
Uranium.—Pratt, J. H., 3.
Urenchelys.—Woodward, A. S., 2.
Uri (Switzerland). — Bœckh, J., 3 Lugeon, M., 1.
Ursus.—Flores, E., 1 & 3; Smallwood, W. M., 1.
Utah (U.S.A.). — Davis, W. M., 3; Eldridge, G. H., 1; Emmons, S. F., 2; Huntington, E., 1; Stobbs, L. S., 1.

Vaccinium.—Engelhardt, H., 1.
Vachères (Basses-Alpes).—Jacob, C., 1.
Vaginulina.—Herrmann, A., 1.
Valais (Switzerland).—Solly, R. H., 1 & 2; Tornquist, A., 2.
Valanginian (Provence).—Pellat, E., 1.
Vallée Poussin, C. de la. *See* Firket, A., 2; Van den Broeck, E., 6.
—— -marl, Thuringia.—Wuest, E., 1.
Valley, Teign R.—Somervail, A.
Valleys, Austria (Upper).—Haag, F., 1.
——, hanging. — Branner, J. C., 5; Crosby, W. O., 2.
——, Klamath.—Hershey, O. H., 4.
——, Norway.—Monckton, H. W., 2 & 4.
——, permanence of river-.—Hill, E., 1.
——, rift-.—Graber, H. V., 1.
——, Tuscany.—Lotti, B., 2.
——, Tyrol.—Hess, H., 2.
——. *See also* River, &c.
Valvata.—Fœrster, B., 5; Pavlov, P. S., 2.
Vanadinite.—Bowman, H. L., 1; Lovisato, D., 2.
Vanadium, occurrence of.—Mingaye, J. C. H., 1; Pratt, J. H., 3.
Vanikoropsis.—Etheridge, R., Fil., 2.
Vanthoffite.—Van't Hoff, J. H., 4.

Vanua Levu (Fiji).—Bonney, T. G., 10.
Varanus.—Nopčsa, F. von, Jun., 3.
Variolitic pillow-lava, Newfoundland.—Daly, R. A., 1.
Värmland (Sweden).—Blomberg, A., 2.
Vaskö (Hungary).—Weinschenk, E., 3.
Vasluĭ (Rumania).—Sevastos, R., 1.
Vaucluse (Provence).—Putzeys, E., 2; Savornin, J., 2; Van den Broeck, E., 13.
Vaugirard (Paris).—Meunier, S., 6 & 8; Stehlin, H. G., 1 & 2.
Vecchio, Mte. (Sardinia).—Millosevich, F., 2.
Vegas, Las (New Mex.).—Springer, A., 1.
Vegetation, changes of level &. — Sernander, R., 2.
Veglia I. (Adriatic).—Waagen, L., 1.
Veins, Cornwall.—Flett, J. S., 1.
——, country-rock &.—Weed, W. H., 1.
——, earthquakes & mineral. — Montessus de Ballore, F. de, 2.
——, fissure-.—Lakes, A., 9.
——, formation of.—Joly, J., 3; Kemp, J. F., 2.
——, I. of Man. — Bonney, T. G., 4; Lomas, J., 1.
——, ore-enrichment.—Pošepny, F., 1; Weed, W. H., 4.
——, Skiddaw Series of.—Postlethwaite, J., 1.
——. *See also* Ore-deposits, &c.
Vendée (France). — Chartron, C., 1; Michel-Lévy, A., 1.
Venediger, Gross (Tyrol).—Weinschenk, E., 2.
Venericardia.—Casey, T. L., 1.
Veneridæ.—Dall, W. H., 1.
Venetia (Italy).—Airaghi, C., 2; Bittner, A., 1; Campana, D. del, 1; Checchia-Rispoli, G., 1; Gortani, M., 1–3; Keyserling, H. von, 1; Ochsenius, C., 2; Oppenheim, P., 5 & 6; Patrini, P., 1; Taramelli, T., 2; *see also* Alps, Carnic.
Venice (Italy).—Ochsenius, C., 2.
Ventriculites. — Ungern-Sternberg, E. von, 1.
Venus.—Dollfus, G. F., 4; Franchis, F. de, 1.
Vergada I. (Dalmatia).—Schubert, R. J., 1.
Vergys (Savoy).—Sarasin, C., 1.
Vermiceras.—Fucini, A., 1.
Vermont (U.S.A.).—Dale, T. N., 1; Hobbs, W. H., 6; Perkins, G. H., 1.
Verneuilina.—Liebus, A., 2.
Vernon Mt. (Ky.).—Merrill, G. P., 4.
Verona (Italy).—Oppenheim, P., 6; Taramelli, T., 3.
Verrucano (Moldavia).—Simionescŭ, J. T., 1.
Vestinautilus.—Crick, G. C., 2.
Vesuvius.—Anon., 24; Kewitsch, G., 1; Matteucci, R. V., 1; Medanich, G., 1.
Viburnum.—Penhallow, D. P., 1.
Vicenza (Italy).—Campana, D. del, 1.
Vicksburg (Miss.).—Casey, T. L., 1.
Victoria (Austral.).—Chapman, F., 1 & 2; Coghlan, T. A., 1; Dennant, J., 2 & 3; Grant, F. E., 1; Gregory, J. W., 2 & 3; Jenkins, H. C., 1; Kitson, A. E., 1–3; Maplestone, C. M., 1; Pritchard, G. B., 1 & 2; Woodward, A. S., 11.
Victoria Quarry, Buxton.—Dawkins, W. B., 1.
Vidalia.—Sauvage, H. E., 2.
Vielsalm (Belgium).—Delvaux, E., 1.
Vienna Basin (Austria).—Abel, O., 2; Fuchs, T., 6; Toula, F., 2.
Vieuxvy (Ille-et-Vilaine).—Bigot, A., 2 & 4.
Villedieu (Indre).—Canu, F., 2.
Ville-Sauvage (Seine-et-Oise). — Grossouvre, A. de, 1.
Virgatites.—Burckhardt, C., 1.
Virgilina (Va.).—Watson, T. L., 1.
Virginia (U.S.A.).—Campbell, H. D., 1; Watson, T. L., 1; Woodworth, J. B., 1 & 2.
Virginia, W. (U.S.A.).—Campbell, M. R., 2; Eldridge, G. H., 1; Griffith, W., 1; Heurteau, C. E., 1; Simmersbach, B., 1; White, D., 3; White, I. C., 1.
Viscous fusion, mineral.—Joly, J., 5.
Visé (Liége).—Lespineux, G., 1.
Viterbo (Latium).—Meli, R., 1.
Vivara crater (Campania).—Lorenzo, G. de, 5.
Vivipara.—Pavlov, P. S., 2; Stanton, T. W., 2.
Vogelgebirge (Hesse-Darmstadt). — Buecking, H., 4.
Vogtland (Altenburg).—Zimmermann, E., 2.
Voklinshofen (Alsace).—Dœderlein, L., 1.
Vola.—Schubert, R. J., 3.
Volcanic activity, origin of.—Meunier, S., 11; earth's crust &. — Fleischer, A., 1.
—— ashes, Mont Pelé.—Colonna, E., 1; Montana.—Rowe, J. P., 2; Sta. Maria (Guatemala).—Brauns, R., 1; Bergeat, A., 1 & 3; Sapper, K., 1; Schottler, W., 2.
—— craters, Dominica.—Sapper, K., 8.
—— dust, atmospheric absorption &.—Backhouse, T. W., 1; Barbados.—Coppock, J. B., 1; Powell, H., 2; Iceland.—Meunier, S., 12; Italy.—Flores, E., 1; Martinique.—Gillot, H., 1; New Zealand.—Marshall, P., 1; *see also* Dust, Red rain, &c.
—— eruptions, earthquakes &.—Anon., 22; Milne, J., 6; cause of.—Rossel, A., 1; Crete.—Cayeux, L., 2; phenomena of.—Anderson, T., 1–5; Stuebel, A., 1; sunspots &.—Jensen, H. I., 1; Torishima.—Kutschera, M., 1.
—— ——, West Indies.—Anderson, T., 1–5; Curtis, G. C., 1; Gentil, L., 1; Giraud, J., 1; Hœrnes, R., 6; Hovey, E. O., 1; Issel, A., 3; Kewitsch, G.,

1; Klein, C., 1; Lacroix, A., 1-4, 6, 7-9; Lagrange, E., 2; Lobley, J. L., 1; Meunier, S., 14; Powell, H., 1; Sapper, K., 4, 11, & 12; Spencer, J. W., 2 & 4; Supan, A., 1; Verrill, A. E., 3; *see also* Martinique, St. Vincent, &c.
Volcanic formations, age of West Indian. —Spencer, J. W., 2.
—— gases.—Gautier, A., 1.
—— islands, Mediterranean.—Meunier, S., 5; Azores.—Howarth, O. H., 1; Pacific.—Bonney, T. G., 10.
—— phenomena, underground observations &.—Laisant, A., 1.
—— plugs.—Branner, J. C., 4; Buecking, H., 4; Hovey, E. O., 4; Kitson, A. E., 3; Knebel, W., von, 2; Strachey, R., 1.
—— rocks, Argyll.—Kynaston, H. 1; Tintagel Head.—Parkinson, J., 1; *see also* Igneous rocks.
—— secondary phenomena, West Indies. —Curtis, G. C., 3.
Volcano, Quenast.—Simoëns, G., 5.
Volcanoes, Aleutian Is.—Merriam, C. H., 1.
——, America (N.).—Russell, I. C., 1.
——, Andes.—White, R. B., 1 & 2.
——, Argentina & Chile.—Hauthal, R., 1.
——, Auvergne.—Montlosier, — de, 1.
——, boiler-scale miniature.—Stromeyer, C. E., 1.
——, Deccan.—Strachey, R., 1.
——, distribution of.—Lallemand, C., 1; Miron, F., 1.
——, Europe, &c.—Anderson, T., 3.
——, Griqualand (E.).—Schwarz, E. H. L., 2.
——, Guatemala.—Bergeat, A., 1-3; Brauns, R., 1; Schottler, W., 2.
——, Iceland.—Anderson, T., 3.
——, Italy.—Fantappié, L., 1; Lorenzo, G. de, 1-6; Moderni, P., 2; Verri, A., 5.
——, Mexico.—Felix, J., 5; Ordóñez, E., 1.
——, Oregon.—Diller, J. S., 3.
——, origin of.—Lorenzo, G. de, 4; Stuebel, A., 2; Van den Broeck, E., 7; Van Ertborn, O., 5.
——, Salvador.—Sapper, K., 2.
——, Suabian embryo.—Branco, W., 1 & 2; Knebel, W. von, 2.
Volhynia (Russia).—Tutkovski, I., 1.
Volture Mte. (Basilicata).—Lorenzo, G. de, 3.
Vomper R. (Tyrol).—Ampferer, O., 3.
Vosges Mts.—Benecke, E. W., 2 & 5; Delépine, G., 1; Meunier, S., 9; Schumacher, E., 2; Van Werveke, L., 3, 4, 7, 10, 11, 13 & 19.
Vredefort (Transvaal).—Sawyer, A. R., 5.
VUILLEMIN, E. *See Obit.*, Delecroix, —, 1.
Vulcanology, Vesuvius.—Anon., 24.
Vulsinian volcanoes, Rome.—Moderni, P., 2.
Waagenoceras.—Smith, J. P., 1.
Wabash Valley (Ill. & Ind.).—Fuller, M. L., 4.
Wabaunsee Formation, Kansas.—Beede, J. W., 3.
Waihi (N.Z.).—Morgan, P. C., 1.
Walchen (U. Styria).—Redlich, K. A., 1.
Waldenburg (Silesia).—Dathe, E., 1.
Waldheimia.—Antula, J., 1; Bittner, A., 1.
Waldron (Ind.).—Newsom, J. F., 1.
Wales. *See* Monmouthshire, &c.
WALKER, E. E. *See Obit.*, Woodward, H., 11.
Wallensen (Hanover).—Menzel, H., 1.
Walpello Co. (Iowa).—Leonard, A. G., 1.
Walthamstow (Essex).—Holmes, T. V., 2.
Wang-Ping (China).—Drake, N. F., 1.
Waratah (Tasmania).—Twelvetrees, W. H., 3.
WARD, J. *See Obit.*, Dickson, J.
Wardour, Vale of (Wilts).—Andrews, W. R., 1; Jukes-Browne, A. J., 2.
Warsaw (Poland).—Levinski, J., 1.
Warwickshire.—Shrubsole, O. A., 1.
Wasatch Mts. (Utah).—Emmons, S. F., 2.
Washington (U.S.A.).—Clarke, F. W., 1; Landes, H., 1; Shedd, S., 1; Smith, G. O., 1 & 2; Spurr, J. E., 1.
Water, Aargau.—Muehlberg, F., 1.
——, Aisne.—Babinet, —, 1.
——, Alabama.—Hall, B. M., 1.
——, Brussels.—Putzeys, E., 2.
——, California.—Manson, M., 2.
——, Cape Town.—Anon., 36.
——, Caucasus.—Yermolov, A., 1.
——, Cherbourg.—Bigot, A., 6.
——, Colorado.—Fellows, A. L., 1.
——, coloration of.—Dakyns, J. R., 1; Golliez, H., 1; Imbeaux, —, 1.
——, Cuba.—Eigenmann, C. H., 1.
——, density of sea.—Arçtowski, H., 4; Thoulet, J., 1.
——, Doubs.—Van den Broeck, E., 11.
——, Egypt.—Lucas, A., 1.
—— filtration, river-gravels &.—Andrimont, R. d', 2.
——, Flanders.—Andrimont, R. d', 1; Van Ertborn, O., 4 & 11.
——, 'fossil.'—Mackie, W., 4.
——, Hawaiian Is.—Lindgren, W., 1 & 4.
——, Herts.—Fitzmaurice, M., 1; Saunders, J., 1.
——, Idaho.—Russell, I. C., 4.
——, Jurassic limestone.—Woodward, H. B., 12.
——, Kansas.—Johnson, W. D., 1.
——, Lecce.—Taramelli, T., 4.
—— -level, Alost.—Van Ertborn, O., 8; Belgian coalfields.—Kersten, J., 1.
——, Liguria & Elba.—Cortese, G., 1.
——, Manchester.—Pickstone, W., 2.
——, Maryland.—Clark, W. B., 3.
——, Mexico.—Richards, E. H., 1.

Water, Mondovi.—Sacco, F., 1.
——, Neundorf.—Stille, H., 1.
——, New Jersey.—Kuemmel, H. B., 1.
——, Nord.—Vaillant, V., 1.
——, ore-enrichment by hot.—Weed, W. H., 4.
——, origin in Belgian Carboniferous Limestone.—Moulan, T. C., 2.
——, Paris Basin.—Kemna, A., 2; Maillet, E., 1.
——, quarry rock.—Anon., 32.
——, rainfall & underground.—Hooker, C. P., 1.
——, Rappoltsweiler.—Van Werveke, L., 5.
——, Ruhr coal-basin.—Middelschulte, A., 1.
——, Russia (Central).—Sinzov I., 1.
——, salinity of.—Mackie, W., 4.
—— (salt & fresh), denudation by solution.—Joly, J., 2.
——, sea, with arsenic.—Gautier, A., 2.
——, Servia.—Bajetz, M. J., 1.
——, silicic acid in.—Headden, W. P., 1.
——, Simplon Tunnel.—Schardt, H., 2.
——, Swiss mountain-lake, Burcart, E., 1; Swiss underground.—Lugeon, M., 6.
——, Thames & Lea.—Fitzmaurice, M., 1.
——, Tuscany.—Ristori, G., 1; Trabucco, G., 1.
——, underground circulation of.—Couppey de la Forest, M. le, 2; Dienert, F., 1; Fournier, E., 2 & 3; Marboutin, F., 1 & 2; Martel, A. E., 3 & 5; Meunier, S., 15; Rahir, E., 1; Schardt, H., 3; Slichter, C. S., 1; Trillat, A., 1; Van den Broeck, E., 10–13 & 15; Woodward, H. B., 5.
——, Vaucluse.—Putzeys, E., 2; Van den Broeck, E., 13.
——, Venetia.—Ochsenius, C., 2; Taramelli, T., 3.
——, Wyoming (E.).—Adams, G. I., 1.
——, Yorks.—Dwerryhouse, A. R., 1.
——. *See also* Artesian, Mineral, &c.
Wavellite.—Zambonini, F., 1.
Wealden, Boulonnais.—Rigaux, E., 1.
Weathering of building-stone in London.—Anon., 33.
Weiler Valley (Alsace)—Bruhns, W., 2; Linck, G., 2.
Weinheim (Hesse).—Deninger, K., 1.
Weir (Kan.).—Crane, W. R., 2.
Weissenburg (Alsace).—Linck, G., 2.
Wellington (N.Z.).—Hogben, G., 1.
Wellington College (Berks).—Blundell, G. E., 1.
Wells, Bagnacavallo.—Corti, B., 1.
——, Biggleswade.—Home, H., 1.
——, Punjab.—Simpson, R. R., 1.
Wemmelian, Belgium.—Forir, H., 1.
Wenlock Limestone.—Reed, F. R. C., 1.
Werribee Plains (Victoria, Austral.).—Kitson, A. E., 1.
Weser R. estuary.—Schucht, F., 1.
Weser Hills (Westphalia).—Wiese, T., 1.
West Indies.—Anon., 2 & 17; Issel, A., 3; Lagrange, E., 2; Lobley, J. L., 1; Milne, J., 6; Morris, Sir D., 1; Sapper, K., 9; Spencer, J. W., 1–4; Verrill, A. E., 1–3; *see also* Martinique, &c.
Westmorland.—Burns, D., 1; Postlethwaite, J., 1.
Westonia.—Walcott, C. D., 3.
Westphalia (Germany).—Bruecher, M., 1; Drevermann, F., 1; Habets, A., 1; Kaiser, E., 1; Middelschulte, A., 1; Stille, H., 2 & 3; Wiese, T., 1.
Wetzlar (Germany).—Harbort, E., 2.
Whales, subfossil.—Eastman, C. R., 2.
——, Tertiary.—Abel, O., 1.
Whetstones, United States.—Pratt, J. H., 5.
Whinstone, Teesdale.—I'Anson, J. C., 1.
White Bay (Newfoundland).—Howley, J. P., 1.
WHITE, T. G. *See Obit.*, Kemp, J. F., 1.
White Chalk, Devon.—Rowe, A. W., 2.
Whitehaven (Cumberland).—Arber, E. A. N., 4.
White Horse (Yukon).—Brewer, W. M., 1.
White Range (S. Austral.).—Brown, H. Y. L., 1.
White River (U.S.A.).—Matthew, W. D., 2.
White Sea (Russia).—Fedorov, E., 1.
Whitella.—Weller, S., 2.
Wicklow (Ireland).—Seymour, H. J., 2.
Wieliczka (Galicia).—Schrœter, A., 1.
Wiesbaden (Nassau).—Bellinger, J., 2; Delkeskamp, R., 2; Lotz, H., 2; Reinach, — von, 1.
Wight, I. of.—Colenutt, G. W., 1; Woodward, H., 5.
Willemite.—Panebianco, R., 1.
Williamsonia.—Nathorst, A. G., 2.
Wilsonia.—Weller, S., 2.
WILTSHIRE, T. *See Obit.*, Anon., 13; Wiltshire, E. W., 1; Woodward, H., 2.
Wiltshire.—Andrews, W. R., 1; Cunnington, W., 1; Jukes-Browne, A. J., 2; Reid, C., 1, 3 & 7; Rowe, A. W., 1.
Windward Is. (W.I.).—Spencer, J. W., 1.
Windworn stones.—Johnsen, A., 3 & 4; Koken, E., 3 & 4.
Windy Knoll (Derby).—Dawkins, W. B., 1.
Windgälle (Uri).—Bœckh, H., 3.
Wirral Peninsula (Cheshire).—Pickstone, W., 1.
Wisconsin (U.S.A.).—Fenneman, N. M., 1; Grant, U. A., 1; Slichter, C. S., 1; Upham, W., 3; Weidman, S., 2.
Witchellia.—Burckhardt, C., 1.
Witwatersrand (Transvaal).—Black, W. G., 1; Hatch, F. H., 1 & 2; Sawyer, A. R., 1 & 4.

Wojczy (Galicia).—Szajnocha, W., 1.
Wolchonskoite.—Krotov, P., 1.
Wolframite.—Kerforne, F., 5; Irving, J. D., 1.
Wollastonite, Mexico.—Collins, H. F., 1.
Wood, fossil.—Tuzson, J., 1.
Woodbridge (Suffolk).—Whitaker, W., 1.
Woodford (Essex).—Howe, J. A., 2.
Woodlark I. (New Guinea). — Pinder, C. R., 1.
Woodnorton (Worcester).—Richardson, L., 3.
Woodwardian Museum, Cambridge.—Kurtz, F., 1; Reed, F. R. C., 1, 2, & 4.
Woolhope District (Hereford).—Callaway, C., 4.
Woolverstone (Suffolk).—Whitaker, W., 1.
Worcestershire.—Buckman, S. S., 1; Hull, E., 1; Richardson, L., 3.
Worm-burrows, Rocky Mt. quartzite.—Bonney, T. G., 2 & 6.
—— -tracks.—Walther, J., 1.
Wurm, R. (Belgium). — Andrimont, R. d', 2.
Würtemberg (Germany).—Branco, W., 1 & 2; Endriss, K., 1; Engel, —, 1; Fraas, E., 1; Freudenberg, W., 1; Koch, K. R., 1; Schmidt, A., 2; Schuetze, E., 2.
Wutach R. (Baden).—Steinmann, G., 2.
Wyoming (U.S.A.).—Adams, G. I., 1; Hatcher, J. B., 1; Knight, W. C., 1 & 3; Richardson, G. B., 1; Salisbury, R. D., 1; Stobbs, L. S., 1.
Wyoming buried valley, Pennsylvania.—Lyman, B. S., 1.

Xanten (Rhenish Prussia). — Mueller, G., 1.
Xenodiscus.—Schellwien, E., 1.
Xenotime.—Hussak, E., 2.
Xinantecatl (Mexico).—Ordóñez, E., 1.
Xylophomya.—Whitfield, R. P., 3.

Yakutsk (Siberia).—Rein, J., 1; Tolmashev, I. P., 1; Woodward, A. S., 9.
Yellow Sands, Northumberland & Durham.—Lebour, G. A., 1.
Yenisei R. (Siberia).—Ijitski, N., 1 & 2; Jaczewski, L., 1; Ludwig, F., 1; Meister, A., 1 & 2; Tolmashev, I. P., 1 & 2.
Yesso (Japan).—Yabe, H., 1.
Yeu, I. d' (Vendée).—Michel-Lévy, A., 1.
Yonne (France).—Couppey de la Forest, M. le, 1.
York Peninsula (S. Austral.).—Greenway, T. C., 1.
Yorke's Peninsula (N. Terr., S. Austral.).—Brown, H. Y. L., 4.
Yorkey's Goldfield (Queensl.).—Ball, L. C., 3.
Yorkshire.—Anon., 18; Clark, J. E., 1; Dakyns, J. R., 2; Dwerryhouse, A. R., 1; Hawell, J., 1; Hind, W., 5; I'Anson, J. C., 1; Lamplugh, G. W., 3; Richardson, H., 1; Robinson, J. F., 1; Sheppard, T., 1-6; Simpson, W., 1; Smith, W. G., 1; Sutcliffe, R., 1; Wellburn, E. D., 1.
Yosemite Valley (Cal.).—Branner, J. C., 5.
Young, J. *See Obit.*, McKendrick, J. G., 1.
Ypresian, Paris Basin, &c.—Leriche, M., 3.
Yubari (Japan).—Anon., 26.
Yucatan (Mex.).—Ordóñez, E., 2.
Yukon district (N. W. Canada). — Brewer, W. M., 1.
Yverdon (Vaud).—Stehlin, H. G., 2.

Zamites.—Zeiller, R., 2.
Zanthoxylon.—Engelhardt, H., 1.
Zaravecchia (Dalmatia).—Schubert, R. J., 1.
Zatrachys.—Case, E. C., 2.
Zebru Valley (Lombardy). — Hammer, W., 1.
Zeehan (Tasm.).—Waller, G. A., 1 & 2.
Zeeland (Holland).—Lorié, J., 1.
Zeolites.—Cornu, F., 1; Pelikan, A., 1.
Zeuglodon.—Lucas, F. A., 4; Stromer, E. von, 2.
Ziapine (Ural Mts.).—*See* Secka.
Ziller Valley (Tyrol).—Termier, P., 5.
Zinc, Arkansas. — Branner, J. C., 2; Hedburg, E., 1.
——, Bavaria & Tyrol. — Weinschenk, E., 8.
——, Missouri.—Bain, H. F., 2; Hedburg, E., 1; Keyes, C. R., 2.
——, New Jersey.—Kuemmel, W. H., 1.
——, Russia.—Nenadkevich, K., 1.
——, Servia.—Bajetz, M. J., 1; Djlagoi, M. T., 1; Guerich, G., 2.
——, Tasmania.—Waller, G. A., 2.
——, Taunus Mts.—Delkeskamp, R., 2.
——, United States.—Day, D. T., 1; Kirchoff, C., 3.
Zircon. — Bœris, G., 1; Hussak, E., 2; Kœchlin, R., 1; Stevanović, S., 1 & 2; Smith, G. F. H., 3; Thuerach, H., 1.
Zlottowo (Prussia).—Jentzsch, A., 4.
Zones, bryozoan.—Canu, F., 1.
——, Carboniferous.—Arber, E. A. N., 5; Hind, W., 5; Stobbs, J. T., 2.
——, Chalk.—Jukes-Browne, A. J., 3; Rowe, A. W., 1 & 2; Schrammen, A., 1; Woodward, H. B., 7.
——, geological.—Goodchild, J. G., 4.
——, plants as indices.—Arber, E. A. N., 1.
Zöptau (Moravia).—Neuwirth, V., 1.
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List of Abbreviations used for the Names of Publications, Societies, and Public Bodies.

Aarsh. = Aarshefter.
Abh. = Abhandlungen.
Abs. = Abstracts.
Acad. = Academy.
Actes = *also* Verh.
Afh. = Afhandlingar.
Agr. = Agriculture.
Allgem. = Allgemeine.
An. = Anales.
Ann. = Annals, Annuaire, Annual, etc.
Anthr. = Anthropologie, etc.
Anz. = Anzeiger.
Arch. = Archiv, Archives.
Archæol. = Archæologist, Archæology, etc.
Årsskr. = Årsskrift.
Assoc. = Association.
Austral. = Australia, etc.
Balk. = Balkanique.
Beitr. = Beiträge.
Ber. = Bericht, Berichte.
Bergw. = Bergwesen.
Bibl. = Biblical.
Biol. = Biological.
Biom. = Biometry.
Bol. = Boletin, Boletim.
Boll. = Bollettino.
Bot. = Botanical.
Bull. = Bulletin.
Bur. = Bureau.
Centralbl. = Centralblatt.
Chem. = Chemical.
Coll. = Colliery, College.
Com. = Comitato, etc.
Comm. = Communications, etc.
Commiss. = Commissão, etc.
Conch. = Conchology, etc.
Congr. = Congress.
C.-R. = Comptes-rendus.
Denkschr. = Denkschriften.
Dir. = Direccão, etc.
Earthq. = Earthquake.
Engin. = Engineering, Engineers.
Erdk. = Erdkunde.
Erläut. = Erläuterungen.
F. C. = Field-Club.
Festschr. = Festschrift.
Földt. = Földtani.
Fom. = Fomento.
Foren. = Forening.
Förh. = Förhandlingar.
Geogn. = Geognostische.
Geogr. = Geographical.
Geol. = Geological, Geologist.
Gesch. = Geschichte.
Gesellsch. = Gesellschaft.
Giorn. = Giornale.
Handl. = Handlingar.
Helv. = Helvétique.
Hist. = History.
Hofmus. = Hofmuseum.
Hütt. = Hüttenwesen, etc.
Idrogr. = Idrografico.
Industr. = Industrial.
Inst. = Institute, Institution.
Izv. = Izvestia.
Jaarb. = Jaarboek.
Jahrb. = Jahrbuch.
Jahresb. = Jahresbericht.
Jahresh. = Jahreshefte.
Journ. = Journal.
K. = Königlich, Kaiserlich, etc.
Közl. = Közlöny.
Kryst. = Krystallographie.
Landesanst. = Landesanstalt.
Landesd. = Landesdurchforschung.
Lefnadst. = Lefnadsteckningar.
Lingust. = Lingustica.
Linn. = Linnean, etc.
Lit. = Literary.
Mag. = Magazine.
Malacol. = Malacological, etc.
Mater. = Materialien, Matériaux.
Math. = Mathematisch, etc.

M. E. = Mining Engineers.
Med. = Medical, etc.
Meddel. = Meddelanden, Meddelelser.
Mem. = Memoirs, etc.
Met. = Meteorological.
Metall. = Metallurgy.
Micr. = Microscopical.
Mijnw. = Mijnwezen.
Min. = Mineralogy, Mining, etc.
Minist. = Ministerio, etc.
Monogr. = Monographs.
Mus. = Museum, etc.
N. = Neues, New, etc.
Nac. = Nacional.
Nachr. = Nachricht.
Nat. = National, Natural.
Naturf. = Naturforschend.
Naturgesch. = Naturgeschichte.
Naturh. = Naturhistorisch.
Naturw. = Naturwissenschaftlich.
Ned. O.I. = Nederlandsch Oost-Indië.
Notizbl. = Notizblatt.
Nouv. = Nouveau.
N.S. = Nova Scotia.
N.Z. = New Zealand.
Observ. = Observatoire, etc.
Öfvers. = Öfversigt.
Overs. = Oversigt.
Palæont. = Palæontographical, etc.
Parerg. = Parergones.
Petr. = Petrography, etc.
Phil. = Philosophical.
Philom. = Philomathique.
Photogr. = Photographical.
Phys. = Physical, etc.
Proc. = Proceedings.
Proc.-verb. = Procès-verbaux.
Prof. = Professional.
Progr. = Progress.
Publ. = Publications.
Q. = Quarterly.
R. = Royal, Real, Reale, etc.
Rass. = Rassegna.
Rec. = Records.
Reliq. = Reliquary.
Rendic. = Rendiconti.
Rep. = Report, etc.
Rev. = Revue.
Riv. = Rivista.
Rozpr. = Rozprawy.
S. A. = South Africa.
Samml. = Sammlungen.
Sav. = Savant, etc.
Schr. = Schriften.
Schw. = Schweizer, etc.
Sci. = Science, Scientific, etc.
Selsk. = Selskab.
Senckenb. = Senckenbergisch.
Serv. = Service, etc.
Sitz. = Sitzungsberichte.
Smiths. = Smithsonian.
Soc. = Society, etc.
Summ. = Summary.
Surv. = Survey.
Tosc. = Toscana.
Trans. = Transactions, etc.
Umiej. = Umiejetności.
Undersög. = Undersögelse.
Undersökn. = Undersökning.
Univ. = University, etc.
Ver. = Verein.
Verh. = Verhandlungen.
Vidensk. = Videnskab, etc.
Wetterau. = Wetterauisch.
Zap. = Zapiski.
Zeitschr. = Zeitschrift.
Zool. = Zoology, etc.

Examples of Abbreviations of the Names of Societies and Public Bodies.

* These are new to the Library.

Acad. Cæsarea Leopoldino-Carolina. Academia Cæsarea Leopoldino-Carolina Naturæ Curiosorum. Halle.

Acad. Stanislas. Académie de Stanislas. Nancy.

Akad. Umiej. Krakow. Akademii Umiejetności. Cracow.

Allgem. schw. Gesellsch. Naturw. Allgemeine schweizerische Gesellschaft für die gesammten Naturwissenschaften. Geneva, Zürich, &c.

Am. Acad. Arts & Sci. American Academy of Arts & Sciences. Boston (Mass.).

Am. Geol. American Geologist. Minneapolis (Minn.).

Am. Inst. M. E. American Institute of Mining Engineers. New York.

Am. Mus. Nat. Hist. N.Y. American Museum of Natural History. New York.

Am. Nat. American Naturalist. Boston (Mass.).

Analyst. Analyst (Society of Public Analysts). London.

**An. Mus. Nac. Buenos Aires.* Anales del Museo Nacional. Buenos Aires.

Ann. Géogr. Paris. Annales de Géographie. Paris.

Ann. géol. Pénins. balk., Belgrade. Annales géologiques de la Péninsule balkanique. Belgrade.

Ann. idrogr. Rome. Annali idrografici. Rome.

Ann. Sci. nat. (Zool. & Palé.). Annales des Sciences naturelles: Zoologie & Paléontologie. Paris.

Arch. f. Anthr. & Geol. Schleswig-Holsteins. Archiv für Anthropologie & Geologie Schleswig-Holsteins & der benachbarten Gebiete. Kiel.

Arch. néerland. Sci. Archives des Sciences exactes & naturelles, publiées par la Société hollandaise des Sciences à Haarlem. La Haye.

Arch. Sci. phys. & nat. Genève. Archives des Sciences physiques & naturelles. Geneva.

Assoc. franç. Av. Sci. Association française pour l'Avancement des Sciences. Paris.

Austral. Inst. M. E. Australasian Institute of Mining Engineers. Melbourne (Vict.).

Austral. Mus. Australian Museum. Sydney (N.S.W.).

Badisch. geol. Landesanst. Grossherzoglich badische geologische Landesanstalt. Heidelberg.

Beitr. Geophys. Leipzig. Beiträge zur Geophysik. Leipzig.

Beitr. Paläont. Œsterr.-Ung. Beiträge zur Paläontologie & Geologie Œsterreich-Ungarns & des Orients. Vienna.

Berg- hütt. Jahrb. Wien. Berg- & hüttenmännisches Jahrbuch der kaiserlich-königlichen Bergakademien zu Leoben & Příbram & der königlich-ungarischen Bergakademie zu Schemnitz. Vienna.

Berwicks. Nat. Club. Berwickshire Naturalists' Club. Alnwick.

Biol. Soc. Washington. Biological Society of Washington. Washington (D.C.).

**Bol. Ing. Minas, Peru.* Boletín del Cuerpo de Ingenieros de Minas. Lima.

Bristol Mus. Bristol Museum. Bristol.

Brit. Assoc. Waterworks Eng. British Association of Waterworks Engineers. London.

Canad. Rec. Sci. Canadian Record of Science. (Natural History Society of Montreal.) Montreal.

Carolina (N.) Geol. Surv., Econ. Papers. North Carolina Geological Survey: Economic Papers. Raleigh (N. Car.).

Carte géol. Suisse. Carte géologique de la Suisse. Berne.

Centralbl. f. Min. Centralblatt für Mineralogie, Geologie & Palæontologie. Stuttgart.

Chem. News. Chemical News. London.

Coll. Guard. Colliery Guardian. London.

Coll. Sci. Tokyo. College of Science, Imperial University. Tokyo.

Colo. Coll. Studies. Colorado College Studies. Colorado Springs (Colo.).

Com. geol. España. Comision del Mapa geológico de España. Madrid.

Com. géol. Russie. Comité géologique. St. Petersburg.

Commiss. géol. Finlande. Commission géologique de Finlande. Helsingfors.

Congrès Soc. sav. Paris. Congrès des Sociétés savantes. Paris.

Connect. Acad. Connecticut Academy of Arts & Sciences. New Haven (Conn.).

Cotteswold Nat. F. C. Cotteswold Naturalists' Field-Club. Gloucester.

Dan. geol. Undersög. Danmarks geologiske Undersögelse. Copenhagen.

Dansk geol. Fören. Dansk geologisk Förening. Copenhagen.

Dep. Geol. Indiana. Department of Geology & Natural Resources of Indiana. Indianopolis (Ind.).

Dep. Lands, W. Austral. Department of Lands & Surveys. Perth (W. A.).

Dep. Mines, N.S. Department of Mines of Nova Scotia. Halifax (N.S.).

Dep. Mines, N.S.W. Department of Mines, New South Wales. Sydney (N.S.W.).

Deutsch. geol. Gesellsch. Deutsche geologische Gesellschaft. Berlin.

Deutsch. u. österreich. Alpenver. Deutscher & österreichischer Alpenverein. Munich.

Deutsch. wissensch. Ver. Santiago. Deutscher wissenschaftlicher Verein zu Santiago. Valparaiso.

Devon. Assoc. Devonshire Association for the Advancement of Science, Literature, & Art. Plymouth.

Dir. Serv. geol. Portugal. Direccão dos Serviços geologicos de Portugal. Lisbon.

Earthq. Comm. Tokyo. Earthquake Investigation-Committee. Tokyo.

Eclogæ Geol. Helv. Eclogæ Geologicæ Helvetiæ. Lausanne.

**Essex Nat.* Essex Naturalist. Stratford.

Földt. Közl. Földtani Közlöny. [Geological Magazine.] Budapest.

Geogn. Jahresh., München. Geognostische Jahreshefte. Munich.

Geogr. Abh., Wien. Geographische Abhandlungen, Wien. Vienna.

Geogr. Anz. Geographischer Anzeiger. See *Peterm. Mitth.*

Geol. palæont. Abh. Jena. Geologische & palæontologische Abhandlungen. Jena.

**Geol. Surv. Vict.* Geological Survey of Victoria. Melbourne.

Geol. Univ. Cal. Department of Geology, University of California. Berkeley (Cal.).

Gesellsch. f. Erdk., Berlin. Gesellschaft für Erdkunde. Berlin.

**Giorn. Geol. prat., Genova.* Giornale di Geologia Pratica, Genoa [*now* Perugia].

Ind. Acad. Sci. Indiana Academy of Science. Indianopolis (Ind.).
Inst. Mines & Forests Brit. Guiana. Institute of Mines & Forests. Georgetown (Demerara).
Jaarb. Mijnw. Ned. O.-Ind. Jaarboek van het Mijnwezen in Nederlandsch Oost-Indië. Amsterdam.
Jahrb. f. Berg- u. Hüttenw. Sachsen. Jahrbuch für das Berg- & Hüttenwesen im Königreiche Sachsen. Freiberg.
Lunds Univ. Årssk. Lunds Universitets Årsskrift. Lund.
Malacol. Soc. Malacological Society. London.
Manch. Lit. & Phil. Soc. Manchester Literary & Philosophical Society. Manchester.
Meddel. Grönland. Meddelelser om Grönland, udgivne af Commissionen for Ledelsen af de geologiske & geographiske Undersögelser i Grönland. Copenhagen.
Meddel. Indust. Finland. Meddelanden från Industristyrelsen i Finland. Helsingfors.
Min. petr. Mitth. Mineralogische & petrographische Mittheilungen. Vienna.
Naturw. Landesd. Böhmen. Naturwissenschaftliche Landesdurchforschung von Böhmen. Prague.
Oberrhein. geol. Ver. Oberrheinischer geologischer Verein. Stuttgart.
**Parerg. Inst. Geol. Mex.* Parergones del Instituto geológico. Mexico.
Peterm. Mitth. Petermann's Mittheilungen. Gotha.
**Proc. Rhodesia Sci. Assoc.* Rhodesia Scientific Association. Bulawayo.
Reliq. & Ill. Archæol. The Reliquary & Illustrated Archæologist. London.
Rev. Cienc., Lima. Revista de Ciencias. Lima.
Rev. crit. Paléozool. Revue critique de Paléozoologie. Paris.
Roy. Inst. G. B. Royal Institution of Great Britain.
Russ.-k. min. Gesellsch. Russisch-kaiserliche mineralogische Gesellschaft. St. Petersburg.
Sect. géol. Cab. S. M. St. Pétersb. Section géologique du Cabinet de Sa Majesté. St. Petersburg.
Senckenb. naturf. Gesellsch. Senckenbergische naturforschende Gesellschaft. Frankfurt-am-Main.
Soc. cient. 'Ant. Alzate.' Sociedad científica 'Antonio Alzate.' Mexico.
Soc. franç. Min. Société française de Minéralogie. Paris.
Soc. helv. Sci. nat. Société helvétique des Sciences naturelles. See *Allgem. schw. Gesellsch.*
Soc. philom. Verdun. Société philomathique de Verdun. Verdun.

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Baiera.—Zeiller, R., 2.
Baikal, Lake (Siberia).—Makeev, P. de.
Baikal, Trans- (Siberia).—Karpinski, A., 3.
BAIN, F. *See Obit.*, Watson, L. W.
Bakal (Ufa Gov.).—Konushevski, L., 2.
Bala (N. Wales).—Davison, C., 7.
Balænoptera.—Salle, E.
Balangoda Group, Ceylon. — Coomáraswámy, A. K., 2 & 3.
Balanus.—Cushman, J. A., 4.
Balaton, Lake (Hungary).—Handmann, R.
Balearic Is.—Major, C. I. F., 2; Martel, E. A., 4.
Balkans (Turkey).—Moureaux, T.
Ballarat (Victoria).—Hart, T. S.
Balmoral (Transvaal). — Dœrffel, D.; Horwood, C. B.; Mellor, E. T., 1 & 2.
Baluchistan (India).—Grundy, J., 8, 9, 13, 14; Vredenburg, E., 4.
Banbury (Oxon).—Walford, E. A.
Banff (Alberta).—Ogilvie, I. H.
Bangalore (Mysore). — Sambasiva-Iyer, V. S.; Wetherell, E. W., 1 & 3.
Banket, Transvaal.—Fourmarier, P., 3.
——. *See also* Conglomerates.
Bankivia.—Pritchard, G. B.
Baoussé-Roussé caverns (Mentone). — Boule, M.
Baraboo (Wisc.). — Weidman, S., 2; Winchell, N. H., 5.
Barbados.—Emtage, R. H.
Barcelona (Spain).—Almera, J.
Barents Sea.—Breitfuss, L.
Bari (Apulia).—Vinassa de Regny, P. E.
Barillopus.—Matthew, G. F., 4.
Barkly (Cape Colony).—Broom, R., 9; Graichen, W.
Barnacles. See *Balanus.*
Barnwell (Camb.).—Fearnsides, W. G.
Baropezia.—Matthew, G. F., 4.
Barroisiceras.—Esch, E. von, &c.
Barting, Lake (Prussia, E.).—Braun, G.
Barwon R. (Victoria).—Hall, T. S., 2.
Baryhelia.—Rauff, H., 2.
Barypoda.—Andrews, C. W., 2,
Barytes.—Brongniart, M.; Guédras, M., 2; Pratt, J. H., 8; Stainier, X., 6; Strandmark, J. E.
Basalt, Cameroons.—Esch, E. von.
——, Caucasus.—Dannenberg, A.
——, Clee Hill.—Clark, W.
——, Colorado.—Stevens, E. A.
——, Durham Co.—Lee, M.
——, Ecuador.—Reiss, W., 1 & 2.
——, Erythræa.—Aloisi, P., 2.; Manasse, E., 2 & 3.
——, Greenland.—Nordenskjœld, O., 2; Phalen, W. C.
——, Hesse.—Bauer, M.; Schwantke, A., 3.
——, Homberg a. d. Efze.—Reuber, O.
——, Hungary.—Koch, A., 3.
——, Lake-District.—Harker, A.
——, magnetism of.—Allan, G. E.
——, Mexico.—Finlay, G. I.
——, Scanian.—Calker, F. J. P. van.
——, Shantung.—Rinne, F., 3.
——, Shropshire.—Boulton, W. S. 2.
——, Sicily.—Platania, G.
——, Tongking,—Hubert, H., 2.
——, Victoria.—Gregory, J. W.
——, Weston-super-Mare.—Boulton, W. S.
Basel (Switzerland).—Baumberger, E., 3; Leuthardt, F.; Sarasin, F., 3; Struebin, K., 2.
Bashahr (Himalayas).—Hayden, H. H.
Basque District (Spain).—Dufau, C.
Bassano (Venetia).—Campana, B. del.
Bath (Somerset).—Strutt, R. J.
Bathropyramis.—Squinabol, S., 3.
Batjan (D. E. I.).—Martin, K.
Batrachia, Triassic.—Lucas, F. A., 2.
Batrachian Palæozoic footprints.—Matthew, G. F., 4 & 5.
Baumann's Cave, Rübeland.—Blasius, W., 1 & 3.
Bautshi (Nigeria).—Dunstan, W. R., 3.
Bauxite.—Kaiser, E., 5; Struthers, J.
Bavaria.—Klockmann, F., 2; Knebel, W. von; Neischl, A.; Schlosser, M., 4 & 5; Walther, J., 3.
——. *See also* Rhenish Bavaria.
Beaches, travel of.—Douglas, W. T.
——. *See also* Raised Beaches.
Beaumont (Tex.).—Hill, R. T.
Beaver River (Pa.).—Hice, R. R.
Beddington (Surrey).—Hinde, G. J.
Bedfordshire.—Woodward, H. B., 4.
BEECHER, C. E. *See Obits.*, Anon., 1; Clarke, J. M., 8; Dall, W. H., 2; Schuchert, C.; Winchell, N. H., 3.
Beinn-Ledi Group, Scotland.—Cunningham-Craig, E. H.
Bela (Bengal).—Vredenburg, E.
Belemnitella mucronata-zone, Brunswick.—Wollemann, A.
Belemnites, Cretaceous.—Crick, G. C., 7.
——, Jurassic. — Ilovaïski, D.; Rœssinger, G., 2.
Belfast (Ireland).—Gough, G. C., 2; Lamplugh, G. W., 4.
Belfast Lough.—Patterson, Sir R. L.
Belgium, Archæan geology. — Lohest, M., 3.

Belgium, coalfields & iron of Northern.—Lambert, G.

—— geological map, &c.—Dewalque, G.

——, hydrography and faults.—Greindl, Baron, —., 2.

——, river-evolution.—Cornet, J.

——, tectonic map of.—Deladrier, E.; Prinz, W., 2.

Bell, M. *See Obit.*, Geikie, Sir Archibald, 4.

Bellefonte (Pa.).—Collie, G. L.

Bellerophon.—Clarke, J. M., 2; Perner, J.

Belluno (Venetia).—Dal Piaz, G.

Belmont (Vaud).—Kissling, E.

Belvédère Château, Vienna.—Depéret, C.; Hœrnes, R.

Bena de Padru (Sardinia).—Lovisato, D., 2.

Bendigo (Vict.).—Whitelaw, H. S.

Bengal (India).—Oldham, R. D.

Benkovac (Dalmatia).—Schubert, R. J.

Bennettites.—Seward, A. C., 2; Wieland, G. R., 3.

Beocsin (Hungary).—Koch, A.

Berenicea.—Toula, F.

Berezna (Hungary.—Poševitz, T.

Bergamo (Lombardy).—Pozzi, Z.

Bergen (Norway).—Monckton, H. W.

Berkshire.—White, H. J. O.

Berlieria.—Loriol, P. de.

Bermuda (W.I.).—Gulick, A.

Berne (Switzerland).—Baltzer, A.; Rœssinger, G.

Bernician, Durham, &c.—Simpson, J. B.

Berringa (Victoria).—Bradford, W., 10.

Berry Lead, &c. (Victoria),—Gregory, J. W.

Berwick (Victoria).—Deane, H.; Kitson, A. E., 3.

Berwickshire (Scotland).—Goodchild, J. G., 2–4; Norman, F. M.

Berwyn Hills (N. Wales).—Cope, T. H., 2; Jevons, H. S.

Beryl.—Achiardi, G. d', 2; Kerforne, F.; Hubert, E.

Besançon (Doubs).—Fournier, E., 3.

Bettolina Pass (Pennine Alps).—Zambonini, F.

Betulinium.—Pampaloni, L.

Bezuidenhout Valley (Transvaal).—Hatch, F. H., 6.

Biarritz (Basses-Pyrénées).—Stuart-Menteath, P. W.

Biella (Piedmont).—Franchi, S.

Bienne, L. (Berne).—Baumberger, E., 3.

Bihar (Hungary).—Szadeczki, J.

Bingham (Utah).—Boutwell, J. M., 2.

Binn Valley (Valais).—Solly, R. H., 1 & 2.

Biotite.—Zambonini, F., 4.

Biradiolites.—Parona, C. F.

Birds, Cretaceous.—Lucas, F. A., 3.

——, Dinosaurs &.—Gadow, H.

——, fossil, British Museum (Natural History).—Woodward, A. S., 8.

——, Jurassic.—Lambe, L. M., 2.

Birds, New Zealand extinct.—Hamilton, A., 2 & 3.

——, Quaternary.—Grandidier, G.

——, Tertiary.—Andrews, C. W., 5.

Bisbee (Ariz.).—Ransome, F. L., 1 & 3.

Bischofite.—Przibyila, C.

Bismuth.—Ball, L. C., 3; Struthers, J., 5.

Bitterroot Range (Mont.).—Lindgren, W., 2 & 5.

Bitumen, origin of.—Morgan, W. C.

——. *See also* Petroleum.

Bituminous coal, &c., United States.—Campbell, M. R., 2; Eldridge, G. H.

Black Hills (Wyoming & S. Dakota).—Irving, J. D.

Black-Reef Series, Witwatersrand.—Corstorphine, G. S., 2; Molengraaff, G. A. F., 4.

Black Ven (Dorset).—Lang, W. D.

Blackpool (Lancs).—Dawkins, W. B.

Blende.—Beck, R.; Rimatori, C.; Stainier, X., 6.

Bléville (Normandy).—Dubus, A., 1 & 2.

Blitz (Silesia).—Schwantke, A., 2.

Block Mts. (N. Mex.).—Keyes, C. R.

Blocks, Moravia, exotic.—Wiesbaur, J.

——, Swedish transported.—Aminov, G.

Blue Mts. (N.S.W.).—Andrews, E. C.

Boccheggiano district (Corsica).—Tacconi, E.

Bochianites.—Bœhm, G.

Bogs, Lake-District, &c.—Lewis, F. J.

——, Switzerland.—Frueh, J., 3.

——. *See also* Peat.

Bohemia.—Bilharz, O.; Dathe, E.; Diener, C., 4; Hibsch, J. E.; Jækel, O., 5; Jahn, J. J., 1–3; Kafka, J.; Katzer, F., 5; Knett, J., 2; Kořistka, K.; Liebus, A.; Perner, J.; Petrascheck, W., 4; Potonié, H., 2.

——. *See also* Komorau, &c.

Bohemura.—Jækel, O., 5.

Bokkeveld Beds (S. Africa).—Reed, F. R. C.; Lake, P.

Bolca, Mte. (Venetia).—Eastman, C. R.

Bolitho medal.—Collins, J. H., 3.

Bolivia (S. Am.).—Nordenskjœld, E.; Steinmann, G., 4.

Bollia.—Clarke, J. M., 1 & 12.

Bolsena, Lake (Rome).—Moderni, P.; Sabatini, V., 2.

'Bolson' Plains (New Mexico).—Keyes, C. R., 2.

Boltsburn Flats (Co. Durham).—Watson, S.

Bone-bed, Ludlow Formation.—Hinde, G. J., 3.

—— -breccia, Istria.—Moser, L. K., 2.

Boogardie (W. Austral.).—Gibson, C. G.

Boothite.—Kœchlin, R., 2; Schaller, W. T.

Borax, California.—Campbell, M. B., 3; Struthers, J., 7.

——, Chile.—Campo, F. del.

Borbolya (Hungary).—Capellini, G.; Telegd, L. R. von, 2.

Borings, Altcar (Lancs).—Reade, T. M.
——, Asenraij.—Dewalque, G., 2.
——, Australia (W.).—Maitland, A. G.
——, Austria (U.).—Schubert, R. J., 2.
——, Campine, &c.—Lohest, M., 7 & 8; Van Ertborn, O.
——, Durham.—Simpson, J. B.
——, Funafuti Atoll.—Sollas, W. J., 3.
——, Grosszössen.—Gæbert, C.
——, Halifax.—Simpson, W.
——, Hull.—Sheppard, T., 2.
——, Iowa.—Calvin, S., 4.
——, Ithaca (N.Y.).—Tarr, R. S., 2.
——, Madras.—Rau, H. Narayana.
——, Mülhausen (Thuringia).—Kaiser, E., 2.
——, Münster Basin.—Mueller, G., 2.
——, Nord.—Ladrière, J.
——, Paris Basin.—Gosselet, J., 6.
——, Pas-de-Calais.—Gosselet, J., 5.
——, Prussia.—Henrich, F., 2; Schmeisser, K., 2; Tornau, F.; Zimmermann, F.
——, Rhenish Bavaria.—Leppla, A.
——, Templeux-la-Fosse. — Dollfus, G. T., 2.
——, Trinidad.—Guppy, R. J. L., 2.
——, Tver Gov.—Sinzov, I.
——, Victoria. — Anderson, W. R.; Gregory, J. W.
Borneo.—Schmidt, C.
Bornia.—Dall, W. H.
Borouw (Sumatra). — Buecking, H., 4.
Borrowdale (Cumberland).—Walker, E. E.
Boryslav (Galicia).—Schmidt, C., 3; Zuber, R., 2.
Bos.—Blasius, W., 2; Portis, A.
Bosnia.—Beck, H.; Dreger, J., 2; Katzer, F., 2 & 4; Kittl, E.; Schubert, R. J., 3.
Bosrück Tunnel (Upper Austria). — Geyer, G., 2.
Bothriolepis.—Eastman, C. R., 2; Traquair, R. H., 2.
Botticino (Lombardy).—Cacciamali, G. B., 2.
Bouchardia.—Ihering, H. von, 2
Boulder-Beds, Ventersdorp.—Hatch, F. H., 3.
Boulder-Belt (W. Austral.).—Maitland, A. G., 4; Rickard, T. A,
Boulder City (Colo.).—Fenneman, N. M.
Boulder-Clay, Essex.—Thresh, M.
——, Minsk Gov.—Missuna, A., 2.
Boulder-deposits, vegetation &.—Mueller, G., 4.
Boulders, Cambridgeshire Drift.—Rastall, R. H., 3.
——, Manchester glacial.—Hobson, B.
——, Nelson (N.Z.) Triassic conglomerate.—Marshall, P.
——, Netherlands, Scanian basalt-.—Calker, F. J. P. van.
——, rock-decay &.—Upham, W., 2.
Boulders, Yorkshire.—Howarth, J. H.; Sheppard, T., 7.
——. *See also* Erratic blocks.
Boulonnais (France). — Briquet, A.; Dollé, L.; Parent, H.; Zeiller, R., 4.
Bouquet R. (Languedoc).—Mazauric, F.
Bourges (Berry).—Dollfus, G. F., 3.
Brabant (Belgium).—Simoëns, G., 3.
Brachauchenias.—Lucas, F. A., 4.
Brachiopoda, Cambrian.—Delgado, J. F. N., 2; Matthew, G. F., 2.
——, Carboniferous. — Etheridge, R., *fil.*, 3; Girty, G. H.; Greger, D. K.; Smith, J.; Vaughan, A.
——, Cretaceous.—Schepotiev, A.
——, Devonian. — Clarke, J. M., 5; Drevermann, F., 2; Guerich, G.; Raymond, P. E.; Reed, F. R. C.
——, Jurassic.—Buckman, S. S., 2; Cossmann, M., 3; Ilovaïski, D.
——, Permian.—Diener, C.
——, Permo-Carb.—Greger, D. K., 2.
——, Silurian.—Buckman, S. S., 5; Clarke, J. M., 1 & 12; Jahn, J. J.; Kindle, E. M., 2; Rowley, R. R.; Ruedemann, R.
——, Tertiary.—Dall, W. H.; Ihering, H. von, 2; Rzehak, A., 5.
——, Triassic.—Broili, F., 3; Kittl, E.; Philippi, H.
Bradenham (Bucks). — Spicer, Rev. E. C.
Bradford Colliery (Lancs.).—Gerrard, J., 2.
Bragdon Formation, California.—Hershey, O. H.
Brandenburg (Prussia).—Keilhack, K.; Maas, G., 3; Schmierer, T.
BRAVAIS's law, formation of crystals &.—Friedel, G., 3.
Brazil (S. Am.).—Branner, J. C., 1 & 3; Clarke, J. M., 1 & 2; Derby, O. A.; Hussak, E.; Katzer, F.; Scott, H. K., 1 & 2; Woodward, A. S., 7.
Breccia, Chablais Jurassic.—Rœssinger, G., 2.
Brecknockshire.—Howard, F. T.
Bredon Hill (Worcester).—Buckman, S. S., 3.
Breidden Hills (Shropshire).—Jevons, H. S.
Brenner Pass (Tyrol).—Termier, P., 4 & 8.
Brenton R. (Venetia).—Squinabol, S., 4.
Brescia (Lombardy).—Cacciamali, G. B., 1 & 2.
Breton, Cape (Canada).—Matthew, G. F., 2.
Breuillet R. (Seine-et-Oise).—Janet, L.
Briançonnais (Dauphiné).—Termier, P., 2.
Brick-earth, Vienna Basin.—Fuchs, T.
Bridges, natural, Utah.—Dyar, W. W.
Bridlington 'Crag.'—Lamplugh, G. W.; Sheppard, T., 4.
Bristol.—Morgan, C. L.; Short, A. R.; Vaughan, A., 2.
—— Coalfield.—Onions, J. T.

Britanny (France).—Brun, P. de; Dollfus, G. F.; Kerforne, F.; Martonne, E. de, 4.
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British Central Africa.—Brown, H.
British Columbia (Canada).—Atkin, A. J. R.; Barber, W. B.; Brewer, W. M.; Kendall, J. D.; Macbride, R.; Monckton, G. F.; Spencer, A. C.; Stonier, G. A.; Sutton, W. J.; Vicaire, A.
British Isles, coast-changes.—Parkinson, J.
—— ——, earth-movements.—Geikie, Sir Archibald, 3; Strahan, A.
—— Museum. *See* Museum.
—— ——, upheaval of the.—Hull, E.
Brixen (Tyrol).—Petrascheck, W., 2.
Brochantite.—Lindgren, W., 7.
Brome Mt. (Quebec).—Dresser, J. A., 2.
Brongniartia.—Collie, G. L.
Bronteopsis.—Reed, F. R. C., 4.
Bronteus.—Harbort, E.; Reed, F. R. C., 4.
Bronzite.—Klein, C., 5.
Brooksella.—Kinkelin, F., 2.
BROWN, J. A. *See Obit.*, Geikie, Sir Archibald, 4; Monckton, H. W., 2.
Brown-coal, Bohemia.—Schlosser, M.
Bruchköbel (Hanau). — Rausenberger, J.
Brünn (Moravia).—Suess, F. E.
Brunswick (Germany).—Blasius, W., 2; Grabowski, F.; Kloos, H.; Kock, V. von; Nehring, A.; Wollemann, A., 1 & 3.
Brussels (Belgium). — Cuvelier, E.; Rutot, A., 5; Van Ertborn, O., 2.
——, Museum of Paintings.—Dewalque, G.
Bryograptus.—Tœrnquist, S. L.
Bryozoa, Carboniferous.—Girty, G. H.
——, Cretaceous.—Canu, F.
——, Devonian & Silurian.—Cumings, E. R., 2; Ulrich, E. O.
——, rock-cementing by.—Lomas, J., 5.
——, Tertiary.—Canu, F., 2; Maplestone, C. M., 1 & 2; Neviani, A.; Tornquist, A.
Bryozoan limestone, Flinders.—Kitson, A. E., 2.
Bucania.—Clarke, J. M., 1 & 2.
Bucaniella.—Clarke, J. M., 1 & 2; Perner, J.
Buccinum.—Esch, E. von; Laskarev, V.
Bucheggberg (Berne).—Baumberger, E., 3.
Buchiceras.—Hyatt, A.
Buckinghamshire. — Davies, A. M.; Spicer, Rev. E. C.
Budapest (Hungary).—Hofmann, K.
Budua (Dalmatia).—Renz, C.
Buenos Aires (Argentina).—Hauthal, R.
Buffelsdoorn Beds, Klerksdorp. — Dœrffel, D., 4; Draper, D., 2; Voit, F. W.
Buglovska Beds, Volhynia.—Laskarev, V.
Building-stones, British.—Brough, B. H.
——, Illinois.—Alden, W. C.
——, Mysore.—Primrose, A., 2.
——, natural & artificial.—Ford, L. P.
——, New South Wales.—Anon., 23.
——, United States.—Day, D. T.
Bukovina (Galicia). — Olszewski, S.; Teisseyre, W., 2.
Bulgaria.—Cvijić, J.; Toula, F.
Bulimina.—Chapman, F., 1 & 2; Schubert, R. J., 2.
Buliminus.—Bédé, P., 5.
Bulla.—Laskarev, V.
Bunælurus.—Matthew, W. D.
Bung Bong (Victoria).—Hunter, S. B.
Bunter. *See* Trias.
Büren (Basel).—Baumberger, E., 3.
Buri Penin. (Erythræa).—Aloisi, P., 2.
Burnett (Queensland).—Ball, L. C.
Burnmouth (Berwick).—Goodchild, J. G., 4.
Burtinella.—Rovereto, G., 4.
Buru (D.E.I.).—Martin, K., 2.
Butte (Mont.).—Upham, W., 2; Weed, W. H., 3; Winchell, H. V.
Buttes, concretions &.—Todd, J. E.
Buxton (Derbyshire).—Arnold-Bemrose, H. H., 2; Strutt, R. J.

Cadoceras.—Madsen, V.
Caermarthenshire. — Cantrill, T. C.; Davison, C., 2; Fearnsides, W. G., 2.
Cagnano (Apulia). — Checchia-Rispoli, G., 5.
Caillou-qui-bique (Namur).—Dorlodot, L. de.
Cala (Huelva).—Schmidt, C., 4.
Calabria (Italy).—Crema, C.; Fucini, A., 2; Seguenza, L., 2; Stefano, G. di, 2 & 3.
Calamine, Urals.—Revostzki, E. D.
Calamites.—Arber, E. A. N., 6.
Calamophyllia.—Rauff, H., 2.
Calcareous coal, Lanarkshire.—Dron, R. W.
—— tufa, Jemtland.—Kjellmark, K.
—— ——, Liége.—Lohest, M., 5.
—— ——, Orzechau (Gt.).—Ržehak, A.
—— ——. *See also* Tufaceous.
Calceocrinus.—Rowley, R. R.
Calcite.—Billows, E.; Gaubert, P., 3; Goldschmidt, V., 4; Hinden, F.; Muegge, O.; Samoïlov, J., 2; Sterrett, D. B., 2.
Calcretes.—Lomas, J., 5.
Calcutta (Bengal).—Oldham, R. D.
California (U.S.A.).—Adams, G. I., 5; Angermann, E.; Campbell, M. B., 3; Diller, J. S. 1 & 2; Eckel, E. C., 6; Eldridge, G. H., 2; Gilbert, G. K.,

2 & 4; Hæhl, H. L.; Hamlin, H.; Hershey, O. H., 1 & 2; Holway, R. S.; Lakes, A., 2; Lippincott, J. B.; Merriam, J. C., 1–3; Newsom, J. F.; Schaller, W. T.; Simmersbach, B.; Sinclair, W. J.; Struthers, J., 2 & 3.
Calizzano Valley (Liguria).—Issel, A.
Callao (Peru).—Guillet, E. A.
Calliostoma.—Cossmann, M., 2.
Calloporina.—Ulrich, E. O.
Callovian, Morocco.—Gentil, L., 2.
——, Poland.—Rehbinder, B. von, 2.
Caloosahatchie R. (Florida).—Dall, W. H.
Calvados (France).—Bigot, A.; Douvillé, R.
Calvinia (Cape Colony).—Rogers, A. W., 4.
Calymene.—Drevermann, F.
Calyptræa.—Esch, E. von; Mayer-Eymar, C.
Camarotœchia.—Clarke, J. M., 12.
Cambridge University, &c. — Clarke, J. W.
Cambridgeshire.—Fearnsides, W. G.; Marr, J. E., 1 & 2; Rastall, R. H., 3; Whitaker, W., 2.
Cambrian, Canada.—Matthew, G. F., 3.
——, Liége.—Lohest, M., 4.
——, New Brunswick.—Matthew, G. F.
——, Portugal.—Delgado, J. F. N., 2.
Camborne (Cornwall).—Macalister, D. A.
Camerino (Marches, Italy).—Canavari, M.
Cameroons (W. Africa).—Esch, E. von; Solger, F.
Campine (Belgian Limbourg).—Forir, H.; Harzé, E., 1, 3, & 4; Lohest, M., 7 & 8; Stainier, X., 9; Van Ertborn, O.; Rutot, A., 8.
Campodus.—Karpinski, A., 4.
Camptonite, Monzoni.—Romberg, J., 3.
——, Taganrog Gov.—Morozevich, I., 2.
Canada, earthquakes.—Stupart, R. F.
——, geological outline of.—Haas, H.
——, Geological Survey.—Bell, R., 1 & 2; Dawson, G. M.
——, geology, &c., 1902.—Ami, H. M.
——, gold-production.—Lindgren, W., 4.
——, minerals.—Hoffmann, G. C.
——, mines.—Gibson, T. W.; Ingall, D. D.
——, nickel-ores.—Pratt, J. H., 3.
——, petroleum.—Henry, T. A., 8.
—— (N.W.).—Tyrrell, J. B., 1 & 2.
——. *See also* Asbestos, British Columbia, Ontario, &c.
Canali Collection, Perugia University. —Bortolotti, C.
Canandaigua Lake (N.Y.).—Clarke, J. M., 11.
Cananea (Mex.).—Blake, W. P., 4.
Cancellophycus, mechanical origin of.—Martin, D.
Cancer.—Toula, F., 2.
Cancrinite.—Vredenburg, E., 3.
Caninia.—Vaughan, A.
Canis.—Merriam, J. C.; Praeger, R. L., 4; Schlosser, M., 2.
Cannel-coal, Nýřan.—Ryba, F.
Canoe in Dyle alluvium, Malines.—Halet, F.
Cañon City (Cal.).—Ward, H. A.
Cantharidus.—Pritchard, G. B.
Cape Colony (S. Africa).—Corstorphine, G. S.; Dunn, E. J., 2; Graichen, W.; Kuntz, J., 4; Lake, P.; Molengraaff, G. A. F., 3; Reed, F. R. C., 1 & 2; Ritso, B. W.; Rogers, A. W., 1–5; Schwarz, E. H. L., 1, 2, 4, & 5; Seeley, H. G., 1–3; Seward, A. C., 3 & 4; Skinner, B.; Suess, E., 3.
Capitanata (Apulia).—Checchia-Rispoli, G., 3–5.
Capitosaurus.—Woodward, A. S., 5.
Capri, I. of (Italy).—Parona, C. F., 3.
Carabaya (Peru).—Tristan, A.
Caranx.—Eastman, C. R., 3.
Carbonic acid, sea-water &.—Krogh, A.
Carboniferous, Algeria.—Bureau, E., 2.
——, Australia (W.).—Etheridge, R., *fil.*, 3.
——, Belgium.—Destinez, P.; Lohest, M., 7 & 8; Renier, A., 2; Smeysters, J., 2.
——, Caermarthenshire.—Cantrill, T. C.
——, Dalmatia.—Renz, C.
——, Devon.—Arber, E. A. N., 6.
——, Eurasia.—Tchernyshev, T.
—— igneous rocks, Cape Colville (N.Z.). —Mackay, A.
——, Iowa.—Beyer, S. W., 2.
——, Kansas.—Adams, G. I., 4.
——, Lancashire.—Arber, E. A. N.; Bolton, H.
——, Lorraine (French).—Laur, F.
——, Missouri.—Ball, S. H.
——, New Brunswick.—Bailey, L. W.
——, New Mexico.—Keyes, C. R., 3.
——, New South Wales.—Herrmann, A.
——, New York.—Glenn, L. C.
——, Pennsylvania.—Fluck, F.; Glenn, L. C.; Stevenson, G. J.
——, Peru.—Braun, J. M.
——, Pyrenees.—Roussel, J., 2.
——, Tongking.—Zeiller, R., 2.
——, Westphalia, &c.—Schulz-Briesen, —.
—— zones.—Hind, W., 3.
Carboniferous Limestone, Belgium.—Fraipont, J.
—— ——, Bristol.—Vaughan, A., 2.
—— ——, Chepstow.—Richardson, L., 3.
—— ——, Durham, &c.—Simpson, J. B.
—— ——, Galicia.—Guerich, G., 2; Renier, A., 3.
—— ——, quartz in.—Brien, V.
—— ——. *See also* Corals, &c.

Carcharodon.—Koch, A., 2.
Cardinia.—Cossmann, M., 3.
Cardiocaris.—Clarke, J. M., 5.
Cardiocephalus.—Broili, F., 2.
Cardioceras.—Ilovaïski, D.
Cardita.—Archangel, A. D.; Cossmann, M., 4; Dall, W. H.; Ihering, H. von; Mayer-Eymar, C.; Oppenheim, P.; Philipp, H.
Carditopsis.—Dall, W. H.
Cardium.—Andrussov, N.; Archangel, A. D.; Cossmann, M., 3 & 4; Dall, W. H.; Dollfus, G. F., 5; Esch, E. von; Laskarev, V.
Caribbean Is. (W. I.).—Frazer, P.
Cariboo (B. C.).—Macbride, R.
Carnallite.—Przibylla, C.
Carniola (Austria).—Kossmat, F., 2.
Carnivora, Bohemian fossil.—Kafka, J.
——. *See also* Mammalia, &c.
Carnotite.—Phillips, A. H.
Carolina, N. (U.S.A.).—Keith, A., 1 & 3; Pratt, J. H., 1 & 11; Watson, T. L., 1–3; Weed, W. H., 4.
——, S. (U.S.A.).—Pratt, J. H., 11.
Caroline Is. (Pacific).—Kaiser, E., 3.
Carpathian Mts.—Beck, —, 2; Bergeron, J., 2; Diener, C., 4; Limanovski, M.; Martonne, E. de, 2 & 3; Teisseyre, W., 2; Vetters, H.
Carpocanistrum.—Squinabol, S., 3.
Carpolithes.—Deane, H.
Carrara (Tuscany). — Lindemann, B.; Manasse, E., 3.
Carrickfergus (Antrim).—Rigby, J.
Cartersville (Ga.).—Hayes, C. W., 2, 7, & 8.
Carved bones, Kesslerloch cave.—Schœtensack, O.
Carychium.—Gulick, A.
Caryophyllia.—Angelis d'Ossat, G. de.
Casele, Monte (Palermo).—Merciai, G.
Cassianella.—Philipp, H.
Cassiterite.—Borgstrœm, L. H., 2.
Castlemaine (Victoria).—Baragwanath, W., jun.
Catalogue of Scientific Literature. — Morley, M. F.
Catania & Catenanuova (Sicily).—Checchia-Rispoli, G., 2.
Cats, Mont des (Nord).—Dollé, L, 2.
Caucasus (Russia). — Dannenberg, A.; Pyatnizki, P.; Tchernik, G. P., 1 & 3; Thiess, F.; Weber, V., 2; Yushkin, E.
Cauville (Normandy).—Leprévost, E.
Caverns & caves, Balearic Is.—Martel, E. A., 5.
——, Basque District.—Dufau, C.
——, Bavaria.—Nieschl, A.
——, Belgium.—Harzé, E., 2; Mailleux, E., 2; Rauff, H.
——, Bohemia.—Kafka, J.
——, California. — Furlong, E. L.; Sinclair, W. J.
——, Cheddar.—Davies, H. N.
——, Clare, Co.—Praeger, R. L., 3.
——, Cyprus.—Bate, D. M. A.
Caverns & caves, Derbyshire.—Arnold-Bemrose, H. H., 3; Brodrick, H.
——, France.—Cahen, A.; Briet, L.; Boule, M., 1–3; Gazel, A.; Hamy, E. T.; Martel, E. A., 1–4, 6, 10, & 11; Mazauric, F.; Viré, A., 1 & 2.
——, Gibraltar.—Acland, H. D.
——, Harz.—Blasius, W., 1 & 3.
——, Kentucky, &c.—Couppey de la Forest, M. le, 2; Hovey, H. C.
——, New Brunswick.—Bailey, L.W., 2.
——, New South Wales.—Pittman, E. F.
——, New Zealand.—Macleod, H. N.
——, Patagonia.—Cordovez, M.
——, Rome.—Stefani, C. de.
——, Schaffhausen. — Kollmann, J.; Nuesch, J., 1 & 2; Studer, T.
——, Sligo Co.—Praeger, R. L., 4.
——, Transcaucasus. — Martel, E. A., 7–9.
——, Trieste.—Marinitsch, J.
——, Yorkshire.—Brodrick, H.
Cavour, Monte (Piedmont).—Colomba, L., 2.
Cayuga, Lake (N.Y.).—Matson, G. C.
Cedar-Valley Formation, Iowa.—Calvin, S., 4.
Cedroxylon.—Pampaloni, L.
Ceiriog R. (Wales).—Cope, T. H.
Celebes (D. E. I.). — Bruhns, W.; Buecking, H., 2; Koperberg, M.; Man, J. G. de.
Celestite.—Billows, E., 2; Henkel, L.; Kraus, E. H.; Strandmark, J. E.; Zambonini, F., 2.
Cement-marl, Hungary.—Koch, A.
Cements, United States.—Duryee, E.; Eckel, E. C., 5; Emerson, B. K.; Emmons, S. F., 4; Kimball, L. L.; Ries, H., 4; Smith, E. A., 1 & 2.
——. *See also* Portland cement.
Cenellipsis & *Cenosphæra.*—Squinabol, S., 3.
Centrastræa.—Rauff, H., 2.
Cephalopoda, Cambrian.—Karpinski, A., 2.
——, Carboniferous.—Crick, G. C., 4 & 5.
——, Cretaceous.—Crick, G. C., 3 & 8; Hamilton, A.; Hyatt, A.; Lasswitz, R.; Wollemann, A., 4; Yabe, H.
——, Culm.—Rogers, I.
——, Devonian.—Kolbe, H. J.
——, Jurassic.—Bœhm, G.; Campana, D. del; Canavari, M.; Crick, G. C., 1 & 6; Ilovaïski, D.; Loriol, P. de; Madsen, V.; Uhlig, V.; Yokoyama, M., 1 & 2.
——, Permian.—Diener, C., 1 & 3.
——, Silurian.—Blake, Rev. J. F., 2; Kindle, E. M., 2.
——, Tertiary. — Dollfus, G. F., 5; Steinmann, G., 3.
——, Triassic.—Crick, G. C., 6; Vredenburg, E., 4.
——. *See also* Ammonites, &c.
Ceratiocaris.—Chapman, F., 5; Clarke, J. M., 3.

Ceratites.—Linstow, O. von, 2; Philipp, H.
Ceratodus-Beds, Sahara.—Haug, É., 4.
Ceratophyre, Liége.—Mathieu, E.
Ceratotrochus.—Dennant, J., 3.
Ceres (Cape Colony).—Rogers, A. W., 4.
Ceriomya.—Loriol, P. de.
Cerithium.—Archangel, A. D.; Dollfus, G. F., 5; Laskarev, V.; Wollemann, A., 4.
Cervus. — Kœnen, C.; Marani, M.; Pavlov, M., 2; Renevier, E.; Schlosser, M., 2.
Cestracion.—Chapman, F., 7.
Cetacea, Tertiary.—Abel, O.; Capellini, G.; Dal Piaz, G.
Cetona, Monte di (Tuscany).—Fucini, A., 1 & 2.
Ceylon.—Coomáraswámy, A. K., 1–8; Dixon, G. G.; Dunstan, W. R., 6; Henry, T. A., 7; Lomas, J., 7; Ramsay, W.; Stonier, G. A., 3; Struthers, J., 12; Vredenburg, E.
——, Mineralogical Survey of.—Coomáraswámy, A. K., 7.
Cèze R. (Languedoc).—Mazauric, F.
Chablais (Savoy).—Rœssinger, G., 2.
Chad, Lake (Sudan).—Elliot, G. S. McD.; Foureau, F.; Gentil, L.; Hubert, H., 4; Lacoin, L.
Chætetes.—Vaughan, A.
Chalcedony, Martinique.—Lacroix, A., 2.
Chalcophyllite, dehydration of. — Gaubert, P., 4.
Chalcosite.—Lindgren, W., 7; Winchell, H. V.
Chalk, Brunswick.—Wollemann, A., 1 & 3.
——, Denmark.—Hennig, A.
——, England.—Burnet, A.; Dibley, G. E.; Jukes-Browne, A. J., 3; Hinde, G. J.; Holmes, W. M.; Rowe, A. W.; Sherborn, C. D.; Wright, W.
——, Normandy cliffs.—Leprévost, E.
——, Pomerania.—Wahnschaffe, F.
——, Pyrenees (French). — Grossouvre, A. de.
—— soils, water-purification &.—Davies, A. M., 2.
——, Swedish 'writing,' Drift &.—Holst, N. O., 2.
——, Transylvania.—Pálfy, M. von.
Chalk-rubble, Sewerby.—Lamplugh, G. W., 2.
Chama.—Dall, W. H.; Oppenheim, P.; Remeš, M.
Chamosite.—Andrimont, R. d'; Zalinski, E. R.
Champlain Valley (N.Y. & Vt.).—Peet, C. E.; Van Ingen, G.
Chanchamayo (Peru).—Steinmann, G., 2.
CHAPMAN, E. J. *See Obit.*, Anon., 2; Woodward, H., 4.
Charcas (Mex.)—Caballero, G. de J., 2.
Chard (Somerset).—Jukes-Browne, A. J.
Charleroi (Hainault).—Smeyster, J., 1 & 2.
Charles, Glacial lake (Mass.).—Clapp, F. G.
Charmouth (Dorset).—Lang, W. D.
Charnwood Forest (Leicester).—Rœchling, H. A.; Watts, W. W., 2.
Cheddar (Somerset).—Davies, H. N.
Cheirotherium - footprints.—Lomas, J., 3.
Chelonia, Cretaceous.—Wieland, G. R., 1 & 2.
——, Tertiary. — Reinach, A. von; Stefano, G. di.
Cheltenham (Gloucester).—Richardson, L., 7.
Chemakha (Caucasus).—Weber, V., 2.
Chemung formation, New York.—White, D.
Chenopus.—Loriol, P. de.
Chepstow (Monmouth). — Richardson, L., 3.
Cherso I. (Adriatic).—Waagen, L., 2.
Chert, Belgian Devonian.—Fourmarier, P.; Simoëns, G., 2.
——, Ceylon. — Coomáraswámy, A. K., 6.
——, Rustenburg (Transvaal). — Jorissen, E.
Chervettaz, Bois de la (Vaud).—Lugeon, M.
Cheshire.—Lomas, J., 2.
Cheviot Hills (Northumberland). — Goodchild, J. G., 4.
Chicago (Ill.).—Alden, W. C.
Chickasaw Co. (Iowa).—Calvin, S., 3.
Chiesa (Lombardy). — Brugnatelli, L., 2.
Chihuahua (Mex.).—Caballero, G. de J.
Chile (S. Am.). — Campo, F. del; Kæmpffer, E.; Montessus de Ballore, F. de, 3; Ochsenius, C., 2; Pœhlmann, R.; Semper, —; Steinmann, G., 3.
Chiltern (Vict.).—Dunn, E. J.; Hunter, S. B., 2.
Chimæra.—Jækel, O., 2.
China.—Heurteau, C. E.; Hobbs, W. H., 3; Rinne, F., 3; Schlosser, M., 2; Vogelsang, K.
——. *See also* Asia.
Chione.—Dall, W. H.
Chipping Sodbury (Gloucester). *See* Sodbury.
Chistochina (Alaska).—Mendenhall, W. C., 2.
Chitraldroog (Mysore).—Slater, H. K.
Chlamys. — Cossmann, M., 3 & 4; Ihering, H. von; Vinassa de Regny, P. E., 2.
Chloromelanite. — Bauer, M., 2; Colomba, L., 3.
Chonetes.—Raymond, P. E.; Reed, F. R. C.
Chopwell Woods (Durham).—Simpson, J. B.
Chota-Nagpur (Bengal).—Maclaren, J. M., 2.
Chota-Udepur State (Bombay).—Henry, T. A.

Choteboř (Bohemia).—Petrascheck, W., 4.
Christiania.—Clarke, J. M., 12.
Chromite, New Caledonia.—Glasser, E.
——. United States.—Pratt, J. H., 10.
——. *See also* Iron.
Chrysemys.—Loomis, F. B.
Chrysoberyl.—Slavík, F., 3.
Chrysocolla.—Lindgren, W., 7.
Chumung concretions, New York.—Kindle, E. M.
Chuniola.—Gagel, C.
Church Stretton (Salop).—Cobbold, E. S.
Cibali (Catania).—Scalia, S., 2.
Cidaris.—Loriol, P. de, 2.; Tokunago, S.
Cimitaria.—Clarke, J. M., 2.
Cincinnati (Ohio).—Fœrste, A. F.
Cinnabar, British Columbia.—Kendall, J. D.; Monckton, G. F.
—— , Peru.—Umlauff, A. F.
——. *See also* Quicksilver.
Cirropsis.—Perner, J.
Cittanova (Istria).—Moser, L. K., 2.
Clacton-on-Sea (Essex).—Webb, W. M.
Cladophlebis.—Zeiller, R., 2.
Clanwilliam (Cape Colony).—Rogers, A. W., 3.
Clapham (Beds.).—Woodward, H. B., 4.
CLAR, K. *See Obit.*, Waagen, L., 3.
Clare Co. (Ireland).—Praeger, R. L., 3.
Clarendon (Texas).—Gidley, J. W., 3.
Clastic dykes.—Newsom, J. F.
Claudetite.—Loczka, J.
Clavella.—Pritchard, G. B.
Clavulites.—Girty, G. H., 4.
Claxheugh (Durham).—Woolacott, D., 1, 2, & 4.
Clay, analyses of U.S.—Clarke, F. W., 2.
——, composition of.—Ludwig, —.
——, geology of.—Beyer, S. W.
——, George's Bay (Tasm.).—Twelvetrees, W. H., 4.
—— mining.—Brough, B. H.
——, Mississippi & Tennessee..—Eckel, E. C., 3.
——, New Jersey.—Knapp, G. N.; Kuemmel, H. B.
——, New York.—Ries, H.
——, Pennsylvania.—Anon., 19; Emmons, S. F., 4.
——, 'Posen-flaming.' — Maas, G.; Berent, G.
——, United States production.—Middleton, J.; Ries, H., 2.
—— -with-flints, Woldingham.—Robarts, N. F.
Clearwater Mts. (Mont.).—Lindgren, W., 2 & 5.
Cleavage, Mineral.—Friedel, G., 1 & 3.
——. *See also* Minerals.
Clee Hill (Salop).—Clarke, W.
Cleeve Hill (Gloucester).—Gray, J. W.
Cleiothyris.—Etheridge, R., *fil.*, 3.
Cleveland Hills (Yorks).—Howarth, J. H.; Kendall, P. F.
Clidophorus.—Clarke, J. M.
Cliffwood Clays, New Jersey.—Knapp, G. N.
Cliffwood (N.J.).—Berry, E. W.
Clifton (Ariz.).—Lindgren, W., 3 & 7.
Climates, evolution of.—Winchell, N. H.
——, geological.—Fairchild, H. Le R., 3.
——, Palæolithic alpine.—Schuls, A., 2.
Clinocompass.—Blaas, J.
Clinoplains. *See* Terrace-plains.
Clinton Co. (Pa.).—Anon., 19.
Cliona.—Schuetze, E.
Clistophæna.—Squinabol, S., 3.
Clonograptus.—Tornquist, S. L.
CLOSE, M. H. *See Obit.*, Geikie, Sir Archibald, 4.
Clunes (Victoria).—Bradford, W., 5.
Clunie, Glen (Aberdeen).—Barrow, G.
Coal, Alaska.—Collier, A. J., 1 & 2.
——, analysis of Austrian.—John, C. von, 1 & 2.
——, analyses of British.—Anon., 14.
——, analyses of gas.—Lishman, G. P.
——, anthracitization of.—Burns, D., 2.
——, Assam.—Bose, P. N.; Grundy, J., 12.
——, Baluchistan.—Grundy, J., 8, 9, 13, & 14.
——, Belgium.—Fourmarier, F., 2; Lambert, G.
——, ——. *See also* Campine, &c.
——, Brazil.—Scott, H. K., 2.
——, British Columbia.—Macbride, R.; Stonier, G. A.; Vicaire, A.
——, Campine, &c.—Harzé, E., 4; Lohest, M., 7 & 8; Van Ertborn, O.
——, Canada.—Hoffmann, G. C.
——, Cape Colony.—Dunn, E. J., 2.
——, China.—Heurteau, C. E.
——, Derbyshire.—Deacon, M.
——, Durham & Northumberland.—Lee, M.; Simpson, J. B.
——, Egypt.—Alford, C. J.
——, Faröe Is.—Greener, G. A.
——, formation of.—Hall, H.; Hutton, F. W.
——, Gard.—Dougados, —.
——, Great Britain, &c.—Atkinson, J. B., 1-3.
——, Hungary.—Kalecsinszky, A. von, 1 & 3.
——, India.—Fermor, L. L.; Grundy, J., 1-15; Saise, W.; Simpson, R. R., 2.
——, Iowa.—Beyer, S. W., 2.
——, Japan.—Heurteau, C. E.; Lozé, E.; Yonekra, K.
——, Lanarkshire calcareous.—Dron, R. W., 2.
—— Measures. *See* Carboniferous.
—— -mining.—Brough, B. H.
—— ——, history of.—Galloway, R. L.
——, Natal.—Gray, C. J.
——, New Brunswick.—Bailey, L. W.; Poole, H. S.
——, New Caledonia.—Glasser, E.
——, New Mexico.—Reagan, A. B., 2.

Coal, New South Wales.—Atkinson, A. A.; Herrmann, A.; Pittman, E. F.
——, Northumberland. *See* Coalfields & Durham.
——, Nova Scotia.—Gilpin, E., Jun., 3 & 4; Poole, H. S., 2.
——, Nyřan Permian.—Ryba, F.
——, Pennsylvania, &c.—Emmons, S. F., 4.
——, Peru.—Anon., 16; Pinzás, E. J., 2.
——, plants forming.—Grand'Eury, —., 2.
——, Queensland.—Dunstan, B.
——, Saarbrücken.—Van Werveke, L.
——, Saxony.—Dalmer, K., 2.
——, Silesia.—Herbing, J.; Michael, R.
——, Tasmania.—Twelvetrees, W. H., 7–10.
——, Trinidad.—Dunstan, W. R.
——, United States production.—Parker, E. W.
——, Vaud molasse.—Kissling, E.
——, Warwickshire.—Swallow, F. C.
——, Welshpool (Vict.).—Kitson, A. E., 4.
——, Yukon Territory.—Haanel, E., 2.
Coalfields, Africa (S.).—Corstorphine, G. S.; Molengraaff, G. A. F., 3.
——, Belgium.—Forir, H.; Harzé, É, 1 & 3; Stainier, X., 1, 3, 4, & 6.
——, Bristol.—Onions, J. T.
——, Colorado.—Lakes, A.
——, Illinois.—Fuller, M. L., 3.
——, India.—Blake, G. S., 2; Fuller, M. L., 3; Simpson, R. R.; Stonier, G. A., 2.
——, Indo-China.—Monod, G. H.
——, Iowa.—Beyer, S. W., 2.
——, Japan.—Yonekra, K.
——, Lancashire.—Gerrard, J.
——, New Zealand.—Park, J., 2.
——, Pennsylvania.—Campbell, M. R., 2.
——, Pictou.—Poole, H. S., 2.
——, Scotland.—Moore, R. T.; Smith, W.; Traquair, R. H.
——, Silesia.—Gæbler, D.; Tornau, F.
——, United States distribution of.—Hayes, C. W., 3.
——, Wales (S.).—Roberts, J.; Strahan, A., 3.
Coast-changes, British Isles, &c.—Geikie, Sir Archibald, 3 & 5; Parkinson, J.
—— erosion.—Allanson-Winn, R. G.; Spiller, J.; Worth, R. H.
—— forms, Cheshire & Lancashire.—Lomas, J., 2.
—— -ranges, America (N.).—Spencer, A. C.
Cobalt, Canada & United States.—Pratt, J. H., 3.
——, Hungary.—Gesell, A.
——, New Caledonia.—Glasser, E.
——, Transvaal.—Dœrffel, D.; Horwood, C. B.
Cobaltiferous mispickel, Norway.—Fletcher, M.
Coblenz (Rh.-Prussia).—Kœnen, C.
Coccodus.—Hay, O. P., 2; Jækel, O., 3.
Cochlearites.—Reis, O. M.
Cockburn Law & Cockburnspath (Berwick).—Goodchild, J. G., 2 & 4.
Cockroaches, Carboniferous.—Sellards, E. H.
Codakia.—Dall, W. H.
Cœlestine. *See* Celestite.
Cœloceras.—Yokoyama, M., 2.
Cœloma.—Ravn, J. P. J., 2.
Cœur d'Alène (Idaho).—Finlay, J. R., 1 & 2.
Coilopoceras.—Hyatt, A.
Colima Volcano (Mexico).—Arreola, J. M.; Ordoñez, E.
Collonia.—Pritchard, G. B.
Colombia (S. Am.).—Codazzi, R. L.; Hubert, E.; Williams, E. G.
Colorado (U.S.A.).—Cross, W.; Emmons, S. F., 4; Fenneman, N. M.; Howe, E.; Lakes, A., 1 & 5; Purington, C. W.; Spencer, A. C., 3.
——. *See also* Gold, &c.
Colossal Cavern (Ky.).—Hovey, H. C.
Cols, Lauenen district.—Rœssinger, G.
Columbella.—Dall, W. H.; Esch, E. von; Laskarev, V.; Pritchard, G. B.
Columbite.—Tchernik, G. P.
Cominella.—Archangel, A. D.
Commission, International Geological.—Geikie, Sir Archibald.
Como, L. (Italy).—Bistram, A. von; Repossi, E.
Comoseris.—Rauff, H., 2.
Concepcion Bay (Chile).—Steinmann, G., 3.
Conchidium.—Kindle, E. M., 2.
Concretions, Chumung.—Kindle, E. M.
——, geological effects & origin of.—Todd, J. E.
Condroz massif (Namur).—Destinez, P., 1 & 2.
Cones, artificial volcanic.—Tabary, P.
Congeria.—Andrussov, N.; Laskarev, V.
—— -beds, Lr. Austria, &c.—Handmann, R., 2; Rzehak, A., 2.
Conglomerate, Kromdraai.—Sawyer, A. R., 2.
——, Lehigh (Pa.).—Peck, F. B.
——, Liége Coal-Measure.—Stainier, X., 4.
——, Namur Devonian.—Dorlodot, L. de.
——, Sashalom.—Lœrenthey, E., 4.
——, Würtemberg Quaternary.—Dietrich, W.
——. *See also* Banket, Gold, &c.
Conglomerate-dykes, Arizona.—Campbell, M. R., 4.
Congo Free State (Equat. Africa).—Buttgenbach, H.
Congress. *See* Geological Congress.
Coniferites.—Potonié, H., 2.
Conites.—Zeiller, R., 2.
Connecticut (U.S.A.).—Rice, W. N., 2.

Contact-deposits, origin of.—Weed, W. H., 5.
—— metamorphism.—Ells, R. W.; Erdmannsdœrffer, O. H.; Hubert, H., 3; Klockmann, F.; Lane, A. C., 2 & 3.
—— ——. *See also* Metamorphic.
—— ore-deposits, Thuringia.—Hess von Wichdorf, H.
Continental elevation and subsidence.—Geikie, Sir Archibald, 3.
—— origin of Fiji.—Woolnough, W. G.
Continents, origin of.—Mackie, W.
Conularia.—Clarke, J. M.
Coô (Liège).—Dewalque, G., 4; Mathieu, E.
Coolgardie (W. Austral.).—Gibson, C. G., 2; Maitland, A. G., 2-4.
——. *See also* Gold, &c.
Cooperella.—Dall, W. H.
Copford (Essex).—Webb, W. M.
Coppaelian volcanoes (Rome).—Sabatini, V.
Copper, Alaska.—Mendenhall, W. C., 3.
——, Arizona.—Lindgren, W., 3; Ransome, F. L., 1-3.
——, Brazil.—Scott, H. K., 2.
——, California & Carolina, &c.—Diller, J. S., 1 & 4.
——, Chile.—Kæmpffer, E.
——, Colorado.—Spencer, A. C., 3.
——, Cornwall.—Macalister, D. A.
——, Corsica.—Tacconi, E.
——, Cuba.—Hamilton, S. H.
——, Darjiling.—Hayden, H. H., 2.
——, deposition of.—Lane, A. C.
——, garnet in association with.—Blake, W. P., 3.
——, Georgia, &c.—Emmons, S. F., 4.
——, Ireland.—Kinahan, G. H., 2.
——, Montana.—Weed, W. H., 3.
——, Namaqualand.—Kuntz, J., 4; Voit, F. W., 2.
——, New Caledonia.—Glasser, E.
——, New Mexico.—Turner, H. W.
——, New South Wales.—Pittman, E. F.
——, Northampton (W. Austral.).—Maitland, A. G.
——, Ontario.—Carter, W. E. H.; Miller, W. G.
——, Paris sub-soil.—Durandière, — de la.
——, Peru.—Anon., 17; Pinzás, E. J.
——, Queensland.—Ball, L. C., 5; Dunstan, B., 2.
——, Rhodesia.—Dowie, R. C.
——, Sumatra.—Milch, L., 3.
——, Tasmania.—Waller, G. A.
——, Transcaucasus.—Nicou, P.
——, United States production.—Kirchhoff, C., 1.
——, Utah.—Boutwell, J. M., 2.
——, Wyoming.—Emmons, S. F., 2; Lakes, A., 8; Spencer, A. C., 2 & 6.
——, Yukon Territory.—Haanel, E., 2.
Copper, origin of.—Hornung, F.
Copper pyrites, Bolivia.—Toborvi, Z.
—— veins, Bohemia & Saxony.—Andrimont, R. d', 3.
Coprolites, Permian.—Neumayer, L.
Coral-reefs, Palæozoic.—Grabau, A. W., 1.
——, recent.—Agassiz, A.; Branner, J. C., 3; Crossland, C.; Gardiner, J. S., 1 & 2; Schwarz, E. H. L., 3; Sollas, W. J., 3.
Corals, Carboniferous.—Girty, G. H.; Vaughan, A.; Yakovlev, N., 1 & 4.
——, Cretaceous.—Capeder, G., 2; Dacqué, E.; Felix, J.
——, Devonian.—Angelis d'Ossat, G. de, 2; Clarke, J. M., 12.
——, Jurassic.—Bellini, R.; Rauff, H., 2.
——, Permian.—Diener, C.
——, prototheca of.—Bernard, H. M.; Yakovlev, N., 4.
——, Quaternary.—Felix, J., 2.
——, Silurian.—Bernard, H. M.; Etheridge, R., *fil.*, 4; Whitfield, R. P., 2; Yakovlev, N., 4.
——, Tertiary.—Angelis d'Ossat, G. de; Dennant, J., 3; Duerden, J. E.; Felix, J., 2; Janensch, W.; Newton, R. B., 4.
Corbula.—Archangel, A. D.; Esch, E. von; Laskarev, V.
Corbicula.—Newton, R. B., 4.
Cordylocrinus.—Rowley, R. R.
Corea. *See* Korea.
CORFIELD, W. H. *See Obit.*, Geikie, Sir Archibald, 4.
Corfu I. (Ionian Is.).—Renz, C., 2.
Cork Co. (Ireland).—Muff, H. B.; Wright, W. B.
Cornwall.—Collins, J. H.; Davison, C., 6; Flett, J. S., 3; Fox, H., 1 & 2; Green, U., 1 & 2; Macalister, D. A.; Pearce, R.; Prior, G. T.; Reid, C., 2 & 4; Ussher, W. A. E.; Whitley, D. G.
Coronadite.—Lindgren, W., 7,
Corsica.—Bonney, T. G.; Lake, P., 2; Tacconi, E.; Tuckett, F. F.
Corundum.—Brough, B. H.; Carter, W. E.; Coomáraswámy, A. K., 6; Lacroix, A.; Pratt, J. H., 6; Primrose, A., 2; Zeiska, F.
Cosmacanthus.—Evans, H. M.
Cosmina.—Perner, J.
Côte-d'Or (France).—Martel, E. A., 11.
Cotentin (Normandy).—Cossmann, M., 4.
Cotteswold Hills (Gloucester.)—Richardson, L., 5.
Coulsdon (Surrey).—Holmes, W. M.
Courny, Puy- (Auvergne).—Capitan, L.
Courtmacsherry Bay (Co. Cork).—Wright, W. B.
Couvin (Namur).—Mailleux, E., 1 & 2.
Couzeranite, limestone with.—Depéret, C., 3.
Covehithe (Suffolk).—Spiller, J.
Cracow (Galicia).—Guerich, G., 3.
Cranbourne (Victoria).—Kitson, A. E., 3.

Cranæna.—Girty, G. H.
Crania.—Clarke, J. M., 12; Schepotiev, A.
Crassatella.—Oppenheim, P.
Crassatellites.—Dall, W. H.
Crati Valley (Calabria).—Crema, C.; Fucini, A., 3.
Creosaurus.—Osborn, H. F., 3.
Crepidula.—Dall, W. H.; Mayer-Eymar, C.
Cretaceous, Antrim.—Welch, R.
——, Argentina.—Ihering, H. von.
——, Bavarian Alps.—Schlosser, M., 4.
——, Belgium.—Van Ertborn, O., 2.
——, Berne.—Baumberger, E., 2.
——, Bohemia.—Jahn, J. J.
——, Brunswick.—Wollemann, A., 1 & 3.
——, Cambridgeshire.—Marr, J. E., 1 & 2.
——, Cameroons.—Esch, E. von.
——, Dauphiné.—Lory, P., 2.
——, Denmark.—Henning, A.
——, England.—Fox-Strangways, C.; Jukes-Browne, A. J., 3; Rowe, A. W.
——, France (N.).—Briquet, A., 2; Gosselet, J., 7.
——, Galician Podolia.—Teisseyre, W.
——, Greece.—Cayeux, L.
——, Hanover.—Wollemann, A., 4.
——, Japan.—Yabe, H.
——, Libyan Desert.—Quaas, A.
——, Maryland.—Clark, W. B.
——, Mexico.—Hall, C. E.
——, New Jersey.—Berry, E. W.
——, New Mexico.—Keyes, C. R., 3.
——, Paris Basin.—Péron, A.
——, Patagonia.—Wilckens, O.
——, Persia.—Pilgrim, G. E.
——, Portugal.—Felix, J.
——, Pyrenees.—Carez, L., 5; Depéret, C., 3.
——, Sahara.—Haug, E., 4.
——, Silesia.—Flegel, K.; Petrascheck, W., 5.
——, Somaliland.—Dacqué, E.
——, Spain.—Mallada, L.
——, Sula Is.—Bœhm, G.
——, Swiss Jura.—Baumberger, E., 1 & 2.
——, Teutoburg Forest.—Mueller, G.
——, Texas.—Lasswitz, R.
——, Tobolsk Gov.—Ilovaïski, D., 2.
——, Venetia.—Airaghi, C.
——, Vorarlberg.—Stizenberger, J.
Crete, I. of.—Cayeux, L., 2.
Cribricella.—Canu, F., 2.
CRICK, W. D. *See Obit.*, Geikie, Sir Archibald, 4; Monckton, H. W., 3; Thompson, B., 4; Woodward, H., 5.
Crieff (Perth).—Kerr, W., 1–3.
Crinoidea, Cretaceous.—Ravn, J. P. J.; Schuchert, C., 3; Wollemann, A., 4.
——, Devonian.—Wood, E., 2.
——, Jurassic.—Schuchert, C., 3.
Cripple Creek (Colo.).—Rickard, T. A., 2; Stevens, E. A.
Cristellaria.—Schubert, R. J.
Croatia.—Gorjanović-Kramberger, D., 1–3.
Crocodilus.—Loomis, F. B.
Crocoite.—Slavík, F., 3.
Cromyodrimus.—Squinabol, S., 3.
Croydon (Surrey).—Dibley, G. E.; Wright, W.
—— Bourne (Surrey).—Latham, B.; Whitaker, W., 3.
Crustacea, Devonian.—Clarke, J. M., 3 & 5.
——, Jurassic.—Remeš, M.
——, Permian.—Beecher, C. E.
——, Quaternary.—Checchia-Rispoli, G.; Man, J. G. de.
——, Silurian.—Clarke, J. M., 1 & 3.
——, Tertiary.—Ravn, J. P. J., 2; Toula, Q.
Cryolite.—Pratt, J. H., 7.
Cryolithionite.—Kœchlin, R., 2; Ussing, N. V.
Cryptonella.—Reed, F. R. C.
Crystalline limestone, Ceylon.—Coomáraswámy, A. K.
—— surfaces, refracted light &.—Osthoff, A.
Crystallization, order of mineral.—Tschermak, G.
Crystallography.—Cesàro, G.; Gaubert, P., 1 & 7; Wallerant, F.
Crystals, faces of.—Gaubert, P., 1, 2, & 7; Miers, H. A.
——, formation of.—Brazza, F. di; Friedel, G., 1 & 3; Gaubert, P., 3; Samoïlov, J.; Wallerant, F.
——, magnetism &.—Baviak, B.
——, polarization of.—Osthoff, A.
——, projection of.—Smith, G. F. H., 2.
——, rock-salt.—Andrée, K.
——, symmetry of.—Grattarola, G.; Nold, A.; Sommerfeldt, E.
——, twinning of.—Friedel, G., 2; Goldschmidt, V., 3; Kœchlin, R.; Tschermak, G.; Wallerant, F., 3.
Crystosphenes.—Tyrrell, J. B., 2.
Ctenobolbina.—Ruedemann, R.
Ctenodonta.—Delgado, J. F. N., 2.
Ctenopteris.—Zeiller, R., 2.
Ctenothrissa.—Hay, O. P., 2.
Cuba (W.I.).—Birkinbine, J.; Hamilton, S. H.; Spencer, J. W., 2 & 4.
Cucullæa.—Archangel, A. D.; Broili, F., 3; Ihering, H. von; Oppenheim, P.; Tommasi, A.
Cudowa (Bohemia).—Petrascheck, W.
Culham (Oxon).—White, H. J. O.
Culm, Devon.—Arber, E. A. N., 6; Hind, W.; Rogers, I.; Vaughan, A., 3.
——, Germany.—Parkinson, H.
Cumberland.—Burns, D.; Harker, A.; Lewis, F. J.; Walker, E. E.
CUMENGE, É. *See Obit.*, Launay, L. de.
Cummingtonite.—Tapesenko, V.
Cupressinoxylon.—Arber, E. A. N., 2; Pampaloni, L.
Cupressoxylon.—Penhallow, D. P.

Curgy (Burgundy).—Sauvage, H. E., 2.
Cursipes.—Matthew, G. F., 4.
Cuspidaria.—Dall, W. H.
Cuxton (Kent).—Bennett, F. J., 2.
Cuyrmaca Mt. (Cal.).—Lakes, A., 2.
Cyathaspis.—Jækel, O., 4.
Cyathidium.—Ravn, J. P. J.
Cyathocrinus.—Rowley, R. R.
Cyathodonta.—Dall, W. H.
Cycadeoidea.—Ward, L. F.; Wieland, G. R., 3.
Cycadolepis.—Zeiller, R., 2.
Cycads, fruit of.—Zeiller, R., 3.
Cyclinella.—Dall, W. H.
Cyclolites.—Felix, J.
Cyclolobus.—Diener, C., 1 & 3.
Cycloseris.—Bellini, R.; Newton, R. B., 4.
Cyclotropis.—Perner, J.
Cylindrite.—Prior, G. T., 2.
Cymbularia.—Perner, J.
Cynodictis.—Matthew, W. D.
Cynognathus.—Broom, R., 10.
Cyphaspis.—Harbort, E.
Cyphastræa.—Felix, J., 2.
Cyphotrypa.—Ulrich, E. O.
Cypricardella.—Clarke, J. M., 2.
Cypridina.—Jones, T. R.
Cyprina.—Cossmann, M., 3; Jensen, A. S., 1 & 2; Oppenheim, P.
Cyprus.—Bate, D. M. A.
Cyrena.—Dall, W. H.; Oppenheim, P.; Yokoyama, M.
Cyrenoida.—Dall, W. H.
Cyrenopsis.—Etheridge, R., *fil.*, 2.
Cyrospira.—Clarke, J. M., 12.
Cyrthocapsa.—Squinabol, S., 3.
Cyrtodelphis.—Dal Piaz, G.
Cyrtolite. *See* Zircon.
Cyrtolites.—Perner, J.
Cyrtophormis.—Squinabol, S., 3.
Cystiphyllum.—Angelis d'Ossat, G. de, 2.
Cythara.—Dall, W. H.
Cytherea.—Archangel, A. D.; Dall, W. H.; Esch, E. von.
Cytheridea.—Chapman, F.
Cytheropteron.—Chapman, F., 1 & 2.
Czenstochau (Russian Poland).—Rehbinder, B. von.

Dachsenbüel cave (Schaffhausen).—Kollmann, J.; Nuesch, J.
Dactylioceras.—Yokoyama, M., 2.
Dactylius.—Roman, F.
Daghestan (Asia Minor).—Renz, C., 4.
Dahlonega (Ga.).—Eckel, E. C.
Dakota, N. (U.S.A.).—Todd, J. E., 1–3; Upham, W., 5; Wilder, F. A., 2.
——, S.—Bendrat, T. A.; Irving, J. D.; Todd, J. E., 1–3; Upham, W., 5.
Dakota Group, America (N.).—Bureau, E.
Dalecarlia (Sweden).—Huene, F. von.
Dalmanites.—Lake, P.
Dalmatia.—Dainelli, G.; Diener, C., 4; Faidiga, A.; Kerner, F., 1 & 2; Martelli, A.; Renz, C.; Schubert, R. J., 1 & 4; Waagen, L., 3 & 4.
Damaraland (S.W. Africa.)—Kuntz, J., 4.
DAMOUR, A. *See Obit.*, Termier, P.
Danburite.—Goldschmidt, V.; Millosevich, F.
Dandenong (Victoria).—Sutherland, I. M.
Dandot (Salt Range).—Grundy, J., 7.
Danian, Denmark.—Hennig, A.
——, France.—Grossouvre, A. de, 2.
Danube R. (Rumania).—Sevastos, R.
Daonella.—Philipp, H.
Daphnandra.—Deane, H.
Dardanelles.—English, T.; Flett, J.; Newton, R. B., 4.
Darjiling (Bengal Pres.).—Hayden, H. H., 2.
Darwin, Mt. (Tasm.).—Waller, G. A.
Dauphiné (France).—Haug, É., 2; Kilian, W.; Lory, P., 1 & 2; Martel, E. A., 10; Termier, P., 2.
Davidia.—Delgado, J. F. N., 2.
Davie Co. (N. Car.).—Watson, T. L., 2.
Davyhurst (W. Austral.).—Gibson, C. G., 2.
Dawley (Middlesex).—Monckton, H. W., 7.
Dax (Gascony).—Stuart-Menteath, P. W., 2.
Daylesford (Victoria).—Bradford, W., 2.
De Kaap goldfield (Transvaal).—Molengraaff, G. A. F.; Rathbone, E. P.
Dead Sea (Palestine).—Ackroyd, W.
Dearne R. (Yorks).—Carter, W. L., 2.
Death Gulch (Yellowstone Park).—Traphagen, F. W.
Dębnik (Galicia).—Guerich, G.
Dedolomitization.—Teall, J. J. H., 2.
Deep Creek (Victoria).—Herman, H.
Deep-sea deposits, Atlantic (S.).—Pirie, J. H. H.
Dehesa (Cal.).—Kessler, H. H.; Lawson, A. C.
Dehydration, mineral.—Gaubert, P., 4.
Dekayella.—Ulrich, E. O.
Delaware (U.S.A.).—Clark, W. B.
Delphinula.—Picard, E.
Delphinus.—Abel, O.; Koch, A., 2.
Dendracis.—Tornquist, A.
Denmark.—Hennig, A.; Holst, N. O.
Dentalium.—Cossmann, M., 2; Wollemann, A., 4.
Dentilucia.—Cossmann, M., 3.
Dephosphorization, iron &.—Launay, L. de, 2.
Deposits, origin of geological.—Monckton, H. W., 6.
Derbyshire.—Arnold-Bemrose, H. H., 1–3; Brodrick, H.; Davison, C., 1 & 3; Deacon, M.; Howe, J. A.; Stobbs, J. T.
Dermatemys.—Reinach, H. von.
Deroceras.—Fucini, A.
Desborough (Northants).—Moore, J. R.
Descloizite.—Caballero, G. de J., 2; Lovisato, D., 2; Sigmund, A.
Deserts, discoloration of rocks in.—Blake, W. P., 5.

Deserts, origin of.—Kœnen, A. von.
——, sands of.—Vinassa de Regny, P. E.
——, Triassic.—Walther, J.
Desmoceras.—Yabe, H.
Desorella.—Woods, H.
Deutschbrod (Bohemia).—Hinterlechner, K.
Dévoluy (Hautes-Alpes).—Martel, E. A., 2.
Devon.—Collins, J. H.; Hind, W.; Irving, A.; Jukes-Browne, A. J., 2; Lowe, H. J.; Maclaren, J. M.; Rogers, I.; Somervail, A., 1-3; Ussher, W. A. E.; Vaughan, A., 3; Worth, R. H.
Devonian, Africa (S.).—Reed, F. R. C., 1 & 2; Suess, E., 3.
——, Bohemia.—Potonié, H., 2.
——, classification of Upper.—Frech, F.
——, Colorado.—Cross, W.
——, Condroz.—Destinez, P.
——, Cornwall.—Green, U., 2; Ussher, W. A. E., 1 & 2.
——, Galicia.—Guerich, G., 1 & 3.
——, Hesse, &c.—Kaiser, E., 4.
——, Iowa.—Calvin, S., 1–4.
——, Namur.—Destinez, P., 2; Dorlodot, L. de.
——, New York.—Clarke, J. M., 10; Dickinson, H. T.; Kindle, E. M., 1 & 3; Williams, H. S., 2 & 3.
——, Ohio & Pennsylvania.—Williams, H. S., 2.
——, Ontario.—Parks, W. A.
——, picrites, Dillenburg.—Brauns, R.
——, Sahara.—Foureau, F., 2.
——, Westphalia,—Denckmann, A., 1 & 2; Drevermann, F., 2.
——. *See also* Old Red Sandstone, &c.
Devonian cherts, Belgian.—Simoëns, G., 2.
Dewlish (Dorset).—Fisher, Rev. O.
Diabase, California.—Hæhl, H. L.
——, contact-metamorphism of.—Erdmannsdœrffer, O. H.
——, Erythræa.—Aloisi, P., 2.
——, Greenland.—Nordenskjœld, O., 2.
——, Poltava.—Morozevich, I.
——, Saxony,—Bergt, W., 2.
——, Tongking.—Hubert, H., 2.
——, Tuscany.—Manasse, E.
Diablo-Cañon meteorite (Arizona).—Moissan, H.. 2.
Diacanthocapsa.—Squinabol, S., 3.
Diacranodus.—Broili, F.
Dial Range (Tasm.).—Twelvetrees, W. H.
Diamantiferous deposits, Transvaal.—Kynaston, H., 2.
Diamonds.—Brough, B. H.; Gaubert, P., 3; Graichen, W.; Hall, A. L., 3; Kunz, G.; Pittman, E. F.
Diaphorostoma.—Clarke, J. M., 2.
Diapsida.—Osborn, H. F., 4.
Diaptase,—Lindgren, W., 7.
Diaptosauria.—Osborn, H. F., 4.
Diatomaceous earth. *See* Tripoli.
Dicellograptus.—Elles, G. L., 2.
Diceras.—Menzel, H., 2.
Dichograptus.—Tœrnquist, S. L.
Dicholocapsa.—Squinabol, S., 3.
Dicrostonyx.—Praeger, R. L., 4.
Dictyastrum, Dictyocephalus, Dictyomitra.—Squinabol, S., 3.
Dictyophyllum.—Zeiller, R., 2.
Didolodus.—Ameghino, F.
Didymodus.—Broili, F.
Didymograptus.—Hall, T. S.
Didymospira.—Philipp, H.
Dielasma.—Diener, C.; Drevermann, F., 2.
Dierdorf (Westphalia). — Drevermann, F., 2.
Dillenburg (Nassau).—Brauns, R.
Dimetrodon.—Case, E. C.
Dimorphastræa.—Rauff, H., 2.
Dinant (Namur).—Fraipont, J.
Dinopilio.—Fritsch, A., 2.
Dinornithidæ.—Hamilton, A., 2 & 3.
Dinosauria, birds &.—Gadow, H.
——, Cretaceous.—Inkey, B. von; Lambe, L. M., 3; Riggs, E. S.
——, Jurassic.—Woodward, A. S., 7.
——, Triassic.—Riggs, E. S., 2.
——. *See also* Reptilia.
Diorite, Carolina (N.).—Watson, T. L., 2.
——, Greenland.—Phalen, W. C.
——, Ural Mts.—Morozevich, I., 3.
Diplocaulus.—Broili, F., 2.
Diploctenium.—Felix, J.
Diplodon.—Ihering, H. von.
Diplodonta.—Oppenheim, P.
Diplomystus.—Newton, R. B., 4.
Diplostrobus.—Squinabol, S., 3.
Dipoides.—Schlosser, M., 2.
Discinisca.—Dall, W. H.
Discinocaris.—Clarke, J. M., 5.
Discovermetulus.—Rovereto, G., 4.
Dispongotripus.—Squinabol, S., 3.
Disthene. *See* Kyanite.
Dithyrocaris.—Chapman, F., 5.
Divaricella.—Dall, W. H.
Djoua (Sahara).—Haug, E., 4; Foureau, F., 2.
Dobrudsha (Rumania).—Toula, F.
Dobsina (Hungary).—Gesell, A.
Dolatocrinus.—Wood, E., 2.
Dolerite, Hesse.—Schwantke, A.
——, Shropshire.—Boulton, W. S., 2.
Dolnja-Tuzla (Bosnia).—Schubert, R. J., 3.
Dolomite, calcite &.—Hinden, F.
——, Iowa.—Knight, N.
——, Lepontine Alps.—Bistram, A. von.
——, Lombardy.—Tommasi, A.
——, Transvaal.—Hatch, F. H., 5; Jorissen, E.
——, Tyrol.—Skeats, E. W.
Dome-structure, Sierra Nevada (Cal.).—Gilbert, G. K., 2.
Domes, Vesuvian lava.—Mercalli, G.
Domeykite.—Caballero, G. de J.; Kœnig, G. A.
Don Cossacks, Prov. (Russia).—Bogachev, V.
Don R. (Russia).—Derjavin, A.

Don R. (Yorks).—Carter, W. L., 1 & 2.
Donaueschingen (Baden).—Schalch, F.
Donax.—Laskarev, V.
Donegal (Ireland).—MacHenry, A.
Donetz Basin (Russia).—Yakovlev, N.; Zalesski, M. D.
Dorset.—Fisher, Rev. O.
Dorysphæra.—Squinabol, S., 3.
Dos de Mayo Prov. (Peru).—Pinzás, E. J.
Douglas I. (Alaska).—Kinzie, R. A.
Drawings, palæolithic.—Munro, R.
Dresden (Saxony).—Bergt, W., 3.
Drewenz, Lake (Prussia, E.).—Braun, G.
Drift, Cambridgeshire.—Rastall, R. H., 2.
——, Denmark.—Hill, Rev. E.
——, Ilford.—Johnson, J. P., 1, 3, & 8.
——, Iowa.—Macbride, T. H.; Savage, T. E.; Udden, J. A.
——, Kansas & Missouri.—Broadhead, C. C., 2.
——, London.—Cameron, A. C. G.; Pocock, T. I., 1 & 2.
——, New Jersey.—Salisbury, R. D.
——, Scania.—Holst, N. O., 2.
——, Stour Valley.—Whitaker, W.
Drumlins. *See* Moraines.
Dryopithecus.—Abel, O., 2.
Dryptosaurus.—Lambe, L. M.
Dulcigno (Montenegro).—Nelli, B.; Vinassa de Regny, P. E., 3.
Duncrue Salt Mine (Antrim).—Rigby, J.
Dunedin (N.Z.).—Park, J., 3.
Dunes, Hungary.—Horusitzky, H., 3.
——, New Jersey.—Harshberger, J. W.
Dunkard flora, Pennsylvania, &c.—White, D., 2.
Dunolly (Victoria).—Bradford, W., 4 & 7.
Dunton Green (Kent).—Skeats, E.W., 2.
Dunwich (Suffolk).—Spiller, J.
Durham Co.—Abbott, G.; Egglestone, W. M.; Lee, M.; Lewis, F. J.; Simpson, J. B.; Teasdale, T.; Watson, S.; Watts, W. W.; Woolacott, D., 1–4.
——. *See also* Weardale, Whin Sill, &c.
Dust-fall, England (S.) 1903.—Flett, J. S., 2; Mill, H. R., 2.
——, volcanic.—Goodchild, J. G., 7; Rennie, E. H.; Woolnough, W. G., 2.
Dutch East Indies.—Buecking, H., 2–4; Martin, K., 1 & 2.
——. *See also* Celebes Is., &c.
Dwyka Conglomerate (Transvaal).—Mellor, E. T., 2.
Dykes, Arizona conglomerate.—Campbell, M. R., 4.
——, grain of.—Lane, A. C., 2 & 3.
——, Llyn-Padarn.—Elsden, J. V.
——, Nugget Point (N.Z.).—Speight, R.
——, sandstone.—Newsom, J. F.
Dyle R. (Antwerp).—Halet, F.
Dystrophæus.—Huene, F. von, 2.
Dzyshra Mts. (Transcaucasus).—Zeitlin, A. G.

Eagle, Lake (Indiana).—Mills, W. M.
Earth, advent of life on the.—Winchell, N. H., 2.
——, axes of.—Péroche, J.
——, chemical elements.—Launay, L. de, 4.
——, compression of crust of the.—Fisher, Rev. O., 2.
—— contraction, changes of land level &.—Geikie, Sir Archibald, 3.
——, crust of.—Anon., 20; Folie, F.; Fox, C. J. J.; Frazer, P., 2; Geikie, Sir Archibald, 3; Suess, E., 3; Wiik, F. J.
——, figure of the.—Lallemand, C.; Puiseux, M.
——, moon &.—Shaler, N. S.
—— movements, British Isles.—Strahan, A.
——, nebular theory.—Mistockles, N.
——, NEWTON'S theory of.—Borredon, G.
——, origin of.—Fairchild, H. Le R., 3; Howorth, Sir Henry H.
——, orthogonal system.—Golfier, J.
——, underground temperature.—Barker, J.; Jaczevski, L.
Earthquake Observatory, Rome.—Agamennone, G., 2.
—— -waves.—Fisher, Rev. O., 4; Kusakabe, S.; Láska, W.; Lippmann, G.; Montessus de Ballore, F. de, 6.
Earthquakes, Andes.—Montessus de Ballore, F. de, 3.
——, atmospheric pressure &.—Omori, F., 6.
——, Austria (Lr.).—Schwab, P. F.
——, Balkans.—Moureaux, T.
——, Bohemia.—Knett, J., 1 & 2.
——, buildings &.—Montessus de Ballore, F. de.
——, Caernarvon.—Davison, C., 2.
——, Canada.—Stupart, R. F.
——, Caucasus.—Weber, V., 2.
——, Cornwall.—Davison, C., 6.
——, Dalmatia.—Faidiga, A.
——, Derbyshire.—Davison, C., 1 & 3.
——, distribution of.—Montessus de Ballore, F. de, 2.
——, geology &.—Montessus de Ballore, F. de, 5.
——, Hungary.—Kalecsinszki, A. von, 4.
——, Iceland.—Thoroddsen, T., 16, 20, & 21.
——, India.—Montessus de Ballore, F. de, 7; Oldham, R. D.
——, investigations.—Milne, J.
——, Japan.—Imamura, A., 1–4; Omori, J., 3–5.
——, Leicester.—Davison, C., 4.
——, Mexico.—Bœse, E., 5.
——, New Brunswick.—Kain, S. W.
——, New Mexico.—Bagg, R. M.
——, photographic records.—Agamennone, G.
——, Portugal.—Choffat, P., 3 & 4.
——, propagation of.—Lamb, H.

Earthquakes, Pyrenees.—Marchand, E.
——, Rome.—Agamennone, G., 2.
——, Rumania.—Montessus de Ballore, F. de, 4.
——, Russia.—Pavlov, A. P., 2 & 3.
——, Scotland, N. Wales, & Yorkshire.—Davison, C., 7.
——, Spain.—Gerland, G.
——, Sweden.—Svedmark, R. J.
——, Trieste.—Mazelle, E., 2.
——, twin-.—Davison, C., 5.
——, volcanoes &.—Lallemand, C.
——, Würtemberg, &c.—Schmidt, A.
——. *See also* Seismology.
Earths, rare—Baskerville, C.
Eberbach (Hesse).—Salomon, W., 2 & 3.
Eberswalde (Brandenburg).—Krause, G.; Maas, G., 3.
Ecca Beds, Cape Colony.—Dunn, E. J., 2.
——, Transvaal.—Hatch, F. H., 5.
Echinarachnius & *Echinodiscus*.—Tokunaga, S.
Echinoidea, Carboniferous. — Fraipont, J.; Girty, G. H.; Klem, M. J.
——, Cretaceous. — Loriol, P. de, 2; Newton, R. B., 3; Tokunaga, S.
——, Jurassic. — Cossmann, M., 3; Fucini, A., 2; Walther, J., 3; Woods, H.
——, Silurian.—Jækel, O., 5; Rowley, R. R.; Spencer, W. K.
——, Tertiary.—Bather, F. A.; Lambert, J.; Gagel, C.; Schuetze, E.; Tornquist, A., 1 & 3.
——, Triassic.—Broili, F., 3.
Echizen (Japan).—Yokoyama, M., 3.
Eclogites, California.—Holway, R. S.
Ecuador (S. Am.).—Reiss, W., 1 & 2.
Eden Valley (Cumberland).—Burns, D.; Lewis, F. J.
Edenvale Caves (Co. Clare).—Praeger, R. L., 3.
Edestus.—Newton, E. T.
Edge Hill (Warwick).—Walford, E. A.
Edinburgh (Scotland).—Traquair, R. H.
Edjudina (W. Australia).—Maitland, A. G., 2.
Edmondia.—Hind, W., 2.
Education, geology &.—Rice, W. N.; Watts, W. W., 4.
Egerton (Victoria).—Bradford, W., 8.
Egge Mts. (Westphalia).—Stille, H.
Eggenburg (Lr. Austria).—Fuchs, T., 2.
Eggs, fossil.—Morgan, W. C., 1 & 2.
Eglestonite.—Gaubert, P., 6; Kœchlin, R., 2; Moses, A. J., 2.
Egypt.—Alford, C. J.; Andrews, C. W., 1–5; Ball, J.; Barrow, T.; Felix, J., 2; Oppenheim, P.; Reinach, A. von; Stromer, E. von, 3 & 4.
Eifelian fault, Liége.—Fourmarier, P., 4.
Eildon Hills (Roxburgh).—Goodchild, J. G., 4.
Eisengebirge (Bohemia).—Kořistka, K.
Eisnern (Carniola).—Kossmat, F., 3.
Ekaterinoslav (Russia).—Michaelovski, G. P.
Ekbainacanthus.—Yakovlev, N., 3.
Elands R. (Transvaal).—Kynaston, H.; Mellor, E. T.
Elandsfontein (Transvaal).—Kynaston, H., 2.
Elba, I. of.—Achiardi, G. d', 1–4.
Elbert Formation.—Cross, W.
Elbeuf (Seine-Inférieure).—Coulon, L.
Elbrus, Mt. (Caucasus).—Pyatnizki, P.
Elephas.—Andrews, C. W., 4; Bate, D. M. A.; Bortolotti, C.; Dawkins, W. B.; Fisher, Rev. O.; Gregory, W. K.; Holland, T. H.; Seguenza, L., 2; Studer, T.; Troll, O. von.
Elf Valley (Sweden).—Aminov, G.
Elgin (Scotland).—Boulenger, G. A., 2.
Ellesmere (Victoria).—Herman, H.
Elonichthys.—Wellburn, E. D.
Embarras R. (Ill.).—Hubbard, G. D.
Emerald.—Brough, B. H.
Emilia (Italy).—Sangiorgi, D.
EMMONS, E. *See Obit.*, Clarke, J. M., 4; Fairchild, H. L.
Emmonsite.—Hillebrand, W. F.
Empo.—Hay, O. P.
Enallaster.—Loriol, P. de, 2.
Enchelion.—Hay, O. P., 2.
Enchodus.—Hay, O. P.
Encrinurus.—Collie, G. L.; Kindle, E. M., 2.
Enfield (Victoria).—Bradford, W., 3.
Engadine (Grisons).—Delebecque, A.; Grubenmann, U.; Schiller, W.; Termier, P., 6.
Engis (Liége).—Harzé, E., 2.
England, Chalk of.—Jukes-Browne, A. J., 3.
——, coast-changes.—Geikie, Sir Archibald, 3; Parkinson, J.
——, gold.—Collins, J. H.; Maclaren, J. M.
——, mines, &c.—Atkinson, J. B., 1–3; Foster, Sir Clement Le N.
——, orography of.—Mill, H. R.
Engonoceras.—Hyatt, A.; Lasswitz, R.
Ensis.—Laskarev, V.
Eobuthus.—Fritsch, A., 2.
Eocene, Africa (Central).—Bather, F. A.; Lelean, P. S.
——, Cornwall.—Reid, C., 2.
——, Maine-et-Loire.—Bigot, A., 2.
——, Senegambia.—Meunier, S., 1 & 2.
——. *See also* Tertiary.
Eocyliopterus.—Clarke, J. M., 12.
Eohyrax.—Ameghino, F., 2.
Eolithic implements.—Capitan, L.
Eophiura.—Jækel, O., 5.
Eopolychætus.—Ruedemann, R.
Eoprotherotherium.—Ameghino, F., 2.
Eoscorpius.—Baldwin, W., 1 & 2.
Epiaster.—Loriol, P. de, 2.
Epidote.—Zambonini, F.
Epipatriarchus & *Epipithecus*.—Ameghino, F., 2.
Episageceras.—Nœtling, F., 4.
Eppingen (Baden).—Schnarrenberger, C.

Éprave (Namur).—Deladrier, E., 2.
Equisetum.—Zeiller, R., 2.
Equus.—Ameghino, F.; Studer, T.
Erbendorf (Rh.-Bavaria).—Luczizky, W. von.
Erikite.—Bœggild, O. B.; Kœchlin, R., 2.
Erosion, coast-. — Allanson-Winn, R. G.; Parkinson, J.
——, Corsica rock-.—Bonney, T. G.; Lake, P., 2; Tuckett, F. F.
——, North American plains.—Upham, W., 3.
——. *See also* Atmospheric, Rock-erosion, &c.
Erratic blocks, Basel Jura.—Struebin, K., 2.
—— ——, British Isles.—Kendall, P. F., 2.
—— ——, Netherlands.—Calker, F. J. P. van.
Ervilia.—Laskarev, V.
Erythræa (N.E. Africa).—Aloisi, P., 2; Manasse, E., 2.
Erzberg [Mt.] (Styria).—Reibenschuh, A. F.
Erzgebirge (Bohemia).—Knett, J.
—— (Saxony).—Beck, R., 1 & 2; Dalmer, K.; Dammer, B.
—— (Transylvania). — Telegd, L. R. von.
Eschbach (Nassau).—Buecking, H.
Eskdale (Cumberland).—Walker, E. E.
Essex.—Hinton, M. A. C., 1-3; Holmes, T. V., 2 & 3; Johnson, J. P., 1-3 & 8; Kennard, A. S., 1 & 3; Reid, C.; Thresh, M.; Webb, W. M.
——. *See also* Ilford, &c.
Essexite.—Dresser, J. A.
Estheria.—Clarke, J. M., 3; Walther, J., 2.
Estuarine deposits, Kirmington.—Stather, J. W.
—— ——, origin of.—Monckton, H. W., 6; Reade, T. M., 2.
Étampes (Seine-et-Oise). — Gosselet, J., 6.
ETHERIDGE, R. *See Obit.*, Geikie, Sir A., 4; Monckton, H. W., 4; Thompson, B., 5; Woodward, H.; Woodward, H. B., 2.
Etoblattina.—Sellards, E. H.; Zeiller, R., 2.
Eubiodectes.—Hay, O. P., 2.
Eucalyptus & *Eucryphia.*—Deane, H.
Euceratherium.—Sinclair, W. J.
Eucinepeltus.—Brown, B.
Euconulus.—Gulick, A.
Eucrite.—Berwerth, F., 2.
Eucyclus.—Cossmann, M., 2.
Euganean Hills (Venetia).—Billows, E.; Squinabol, S., 2 & 3.
Eulambda.—Ameghino, F., 2.
Eulimella.—Dollfus, G. F., 5.
Eunoa.—Clarke, J. M., 5.
Euphotide, Tuscany.—Manasse, E.
Eurasia, Upper Palæozoic in. — Tchernyshev, T.
Europe, fracture-lines. — Geikie, Sir Archibald, 2.
—— (N.), Quaternary.—Frech, F., 2.
—— & Asia, orographical connection.—Kropotkin, Prince P., 2; Suess, E., 3.
Eurychilius.—Clarke, J. M., 12.
Eurydesma.—Koken, E.
Eusyringium.—Squinabol, S., 3.
Eutrochus.—Pritchard, G. B.
Euxite.—Lincio, G., 2.
EVERETT, J. D. *See Obit.*, Anon., 3.
Evesham (Worcester).—Richardson, L., 5.
Evolution, climate &.—Winchell, N. H.
——, mammalian.—Bensley, B. A.; Lydekker, R.
——, vertebrate, in time.—Woodward, H., 7.
Ewe, Loch (Scotland). — Murray, Sir John, 5.
Exhibition, Louisiana Mining.—Storrs, A. H.
——, Paris International, 1900.—Gesell, A., 2.
——, St. Louis, 1904.—Bauerman, H.; Coomáraswámy, A. K., 4; Pellati, N., 3.
Exogyra.—Ihering, H. von.
EXTON, H. *See Obit.*, Geikie, Sir Archibald, 4.
Eyling, Lake (E. Prussia).—Braun, G.

Fagus.—Deane, H.
Fajumia.—Stromer, E. von, 4.
Falkland Is. (Atlantic).—Vallentin, R.
Falls Creek (Victoria).—Herman, H., 2.
Famennian, Condroz Massif.—Destinez, P., 1 & 2.
Farnham (Surrey).—Monckton, H. W., 7.
Faröe Is.—Greener, G. A.
Farrell, Mount.—Waller, G. A., 3.
Fassa Valley (Tyrol).—Romberg, J., 2.
Fault, Shropshire Great East or Symon.—Elsden, J. V., 2.
Faults, Ballarat.—Hart, T. S.
——, Loir Valley.—Welsch, J.
——, Meuse Valley.—Lespineux, G.
——, origin of.—Douvillé, H.
Faunas, migration of.—Williams, H. S.
Favosites.—Angelis d'Ossat, G. de, 2.
Fayalite, Wisconsin.—Weidman, S., 3.
Fayûm (Egypt).—Andrews, C. W., 5; Stromer, E. von, 4.
Fedaiella.—Picard, E.
Fées Cave, Arcy-sur-Cure.—Hamy, E. T.
Feistmantelia.—Fritsch, A., 2.
Felday (Surrey).—Herries, R. S.
Felis.—Schlosser, M., 2; Sheppard, T., 6; Studer, T.
Felsöesztergály (Hungary).—Koch, A., 2.
Felspars.—Ries, H., 3.
——. *See also* Orthoclase, Plagioclase, &c.
Felspathic rocks, Stavelot.—Dewalque, G., 4.
Fenestella.—Cumings, E. R., 2.
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Ferghana (Turkestan). — Bronyaikov, M.; Weber, V.
Fermanagh Hills (Ireland).—Praeger, R. L.
Fern Pass (Tyrol).—Ampferer, O., 3.
Ferrato, Monte (Tuscany).—Panichi, U., 2.
Fibularia.—Tokunaga, S.; Tornquist, A.
Fichtelite.—Bœckh, H.
Ficula.—Esch, E. von.
Ficus.—Zeiller, R., 2.
Fiji Is. (Pacific). — Gardiner, J. S.; Woolnough, W. G.
Finger-Lakes Region (N.Y.).—Matson, G. C.; Tarr, R. S.
Finkenwalde (Pomerania). — Wahnschaffe, F.
Finland.—Berghell, H.; Borgstrœm, L. H.
Fire-clays, Pennsylvania.—Anon., 19.
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Fishes, Carboniferous.—Karpinski, A., 4; Newton, E. T.; Traquair, R. H.; Wellburn, E. D.; Woodward, A. S., 6.
——, Cretaceous.—Bayer, F.; Coulon, L.; Hay, O. P., 1 & 2; Pantanelli, D., 3; Priem, F.; Woodward, A. S., 2.
——, Devonian.—Eastman, C. R., 1 & 2; Jækel, O., 2 & 3; Kemna, A.; Leriche, M., 3; Sollas, W. J., 2; Traquair, R. H., 2.
——, parietal eye in fossil.—Jækel, O.
——, Permian.—Broili, F.; Dean, B.; Karpinski, A., 4.
——, Silurian.—Jækel, O., 4; Kemna, A.
——, Teleostean.—Boulenger, G. A.
——, Tertiary.—Chapman, F., 7; Coulon, L.; Eastman, C. R., 3; Esch, E. von; Koch, A., 1, 2, & 4; Leriche, M.; Newton, R. B., 4; Pantanelli, D., 4; Priem, F., 2; Simionescŭ, J., 2; Stromer, E. von; Vinassa de Regny, P. E., 3.
——, Triassic.—Evans, H. M.; Linstow, O. von, 2; Scupin, H.
Fissurella.—Mayer-Eymar, C.
Flamborough Head (Yorks).—Rowe, A. W.; Sheppard, T.
'Flaming-clay,' Silesia. — Berent, G.; Maas, G.
Flaming Mts. (Anhalt).—Linstow, O. von, 3.
Flanders.—Andrimont, R. d', 4; Cornet, J., 2; Putzeys, E., 2.
Fleims Valley (Tyrol).—Ippen, J. A.; Romberg, J., 2.
Flinders (Victoria).—Kitson, A. E., 2.
Flint, natural flaking of.—Rutot, A., 4.
——, Paris Basin.—Grossouvre, A., 3.
——, Salisbury plateau. — Hughes, T. McK., 2.
——, United States.—Ries, H., 3.
Florence (Tuscany).—Stefani, C. de, 2.
Florida (U.S.A.).—Schuchert, C.; Spencer, J. W., 2; Vaughan, T. W.
FLOYER, E. A. *See Obit.*, Cornish, V.
Fluorspar.—Bain, H. F.; Dudenhausen, H.; Gaubert, P., 3; Lee, M.; Pratt, J. H., 7.; Ulrich, E. O., 3.
Fluviatile deposits.—Monckton, H. W., 6; Reade, T. M., 2.
Flysch, Alpine.—Frueh, J., 2; Zuber, R.
Fœtorius.—Nehring, A., 2.
Foldings, Alps (Eastern).—Haug, E., 3 & 5; Termier, P., 3.
——, rock-.—Douvillé, H.
Fontainebleau sand, Marchais.—Bédé, P., 3.
Footprints, Carboniferous reptilian.—Matthew, G. F., 4 & 5.
——, Jurassic reptilian.—Fraas, E., 2.
——, Permo-Triassic reptilian.—Cushman, J. A.; Lomas, J., 3; Lull, R. S., 2; Matthew, G. F., 4 & 5; Rigg, E. S., 2; Seeley, H. G.; Woodward, A. S.
Foraminifera, Carboniferous.—Girty, G. H., 3.
——, Cretaceous & Jurassic.—Chapman, F.
——, Quaternary.—Cushman, J. A., 2; Gough, G. C., 2.
——, recent and fossil, Sicily.—Silvestri, A.
——, Tertiary.—Checchia-Rispoli, G., 2; Fornasini, C., 1 & 2; Guppy, R. J. L., 2; Holland, R.; Prever, P. L., 1–3; Schubert, R. J., 2–4; Thuerach, H., 2.
——. *See also* Nummulitic, &c.
Forelands, Lake Ontario cuspate.—Wilson, A. W. G., 2.
Forest, Carboniferous, New Mexico.—Herrick, C. L.
Fort-Union Beds (N. Dakota).—Wilder, F. A., 2.
Fortore Valley (Apulia).—Checchia-Rispoli, G., 4.
Fossils, serial sections of.—Sollas, W. J.
FOSTER, Sir CLEMENT LE N. *See Obit.*, Anon., 4; Collins, J. H., 2; Judd, J. W.
FOUQUÉ, F. A. *See Obit.*, Anon., 5; Geikie, Sir Archibald, 6; Mascart, —.
France, Central massif.—Thévenin, A.
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FRANCIS, W. *See Obit.*, Anon., 6; Geikie, Sir Archibald, 4.
Franckeite.—Prior, G. T., 2.
Frank (Alberta Terr.).—Macconnell, R. G.
Franklin Furnace (N.J.).—Lane, A. C., 2; Spencer, A. C., 5; Wolff, J. E.
Franz Josef Land (Arctic).—Solms-Laubach, H. Graf zu.
Frechiella.—Hoyer, —; Prinz, G.
Freistadtl (Moravia).—Rzehak, A., 4.
Fritschia.—Picard, E.
Fucoids, Silurian.—Hauthal, R.
——, Tertiary.—Fugger, E.
Fuller's earth, Florida, &c.—Vaughan, T. W.
Fulwell (Durham).—Abbott, G.
Funafuti Atoll (Pacific).—Gardner, J. S.; Sollas, W. J., 3.

Fungi, Carboniferous.—Etheridge, R., *fil.*, 3.
Furdia (Hungary).—Schafarzik, F.
Furka Pass (Lepontine Alps).—Dickson, E., 2.
Fürstenwalde (Saxony).—Gæbert, C., 2.
Fusus.—Archangel, A. D.; Wollemann, A., 4.

Gabbro, Grisons.—Grubenmann, U.
——, Lake District.—Harker, A.
——, Monzoni, Mt.—Went, K.
——, orbicular.—Kessler, H. H.; Lawson, A. C.
—— pebbles, Atlantic floor.—Cole, G. A. J., 3.
——, Skye.—Harker, A., 2.
——, Tongking.—Hubert, H., 2.
——, Torre Valley.—Piolti, G.
——, Valais.—Preiswerk, H.
Gabbro-diorite (N. Carolina).—Watson, T. L., 2.
Gadawara (India).—Grundy, J., 2.
Gadolinite.—Holland, T. H.
Galena, Belgian coal with.—Smeysters, J.; Stainier, X., 6.
Galicia (Austria).—Guerich, G., 1 & 2; Olszewski, S.; Renier, A., 3; Schmidt, C., 3; Teisseyre, W., 1 & 2; Wójcik, K.; Zuber, R., 2 & 3.
Galway (Ireland).—MacHenry, A.
Ganges R. mud.—Reade, T. M., 2.
Ganophyllite.—Hamberg, A.
Garadini (Sokoto).—Bather, F. A.; Lelean, P. S.
Gard caverns (Languedoc).—Mazauric, F.
—— coal-basin (Languedoc).—Dougados, —.
Garéwaite.—Duparc, L., 5.
Garfagnana (Tuscany).—Stefani, C. de, 3.
Garnet.—Bergt, W.; Tchernik, G. P., 2; Villarello, J. D., 2.
——, copper in association with.—Blake, W. P., 3.
Garnetiferous rocks, Borrowdale.—Walker, E. E.
—— ——, Predazzo.—Slavík, F., 2.
Garnierite.—Lacroix, A., 4.
Garonne R. (France).—Fabre, L. A.
Garry, Glen (Perth).—Barrow, G.
Gas (natural), argon in.—Moissan, H.
—— (—), Indiana.—Fuller, M. L.; Kinney, B. A.
—— (—), Ohio.—Bownocker, J. A.
—— (—), radioactivity of.—Maclennan, J. C.
—— (—), Sussex.—Oliphant, F. H.; Pearson, R.; Woodward, H. B., 7.
—— (—), United States, occurrence of.—Oliphant, F. H.
Gascoyne District (W. Austral.).—Etheridge, R., *fil.*, 3.
Gastein Bad (Salzkammergut).—Mache, H., 1 & 2.
Gasteropoda, Carboniferous.—Etheridge, R., *fil.*, 3; Girty, G. H.
——, Cretaceous.—Bial de Bellerade, —; Cossmann, M., 2; Dacqué, E.; Etheridge, R., *fil.*; Wollemann, A., 4.
——, Devonian.—Clarke, J. M., 2; Parks, W. A., 2.
——, Jurassic.—Allen, H. A.; Ilovaïski, D.; Loriol, P. de; Toula, F.
——, Permian.—Diener, C.
——, Quaternary.—Gulick, A.; Kennard, A. S., 3; Marr, J. E., 2; Menzel, H.
——, Silurian.—Kindle, E. M., 2; Perner, J.
——, Tertiary.—Andrussov, N.; Archangel, A. D.; Cossmann, M., 1 & 4; Crema, C.; Dall, W. H.; Dollfus, G. F., 5; Esch, E. von; Kormos, T.; Laskarev, V.; Lœrenthey, E., 1–3; Mayer-Eymar, C.; Michaelovski, G. P.; Newton, R. B., 4; Pritchard, G. B.; Ravn, J. P. J., 2; Seguenza, L.; Steinmann, G., 3.
——, Triassic.—Picard, E.
GATTY, C. H. *See Obit.*, Geikie, Sir Archibald, 4.
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Gault, Barnwell.—Fearnsides, W. G.
——, Hanover.—Wollemann, A.
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GEMMELLARO, G. G. *See Obit.*, Bassani, F.; Niccolo, P.; Parona, C. F., 2; Pellati, N., 2.
Geneva, Lake of (Switzerland).—Forel, F. A.; Preller, C. S. du R., 2.
Geniohyus.—Andrews, C. W.
Genoa (Liguria).—Sacco, F.
—— -Novi railway.—Taramelli, T., 4.
Geo-biological terms.—Eastman, C. R., 4.
Geodes, Euganean Hills.—Billows. E.
Geography, geology &.—Mill, H. R.
——, United States.—Davis, W. M.
Geological atlas of Great Britain.—Woodward, H. B., 8.
—— Congress, Vienna, 1903.—Dreger, J., 2; Geikie, Sir Archibald, 1 & 2; Mourlon, M.
—— deposits, types of.—Monckton, H. W., 7.
—— maps.—Watts, W. W.; Wilson, T. S.
—— ——. *See also* Maps.
—— models, making of.—Wilson, T. S.
—— nomenclature.—Gilbert, G. K.
—— photographs.—Anon., 22; Watts, W. W., 3.
—— Society, medals, &c.—Geikie, Sir Archibald, 3 & 4.

Geological Society, America (First).—Fairchild, H. Le R.
—— ——, ——, 1904.—Shattuck, G. B.
—— ——, France.—Haug, É.
—— ——, Manchester.—Hollingworth, G. H.
—— ——, Servia.—Radovonov, S.; Stevanovič, S.. 1 & 2.
—— ——, Yorkshire.—Carter, W. L., 3.
—— Survey, Algeria.—Ficheur, E., 2.
—— ——, Australia (W.).—Maitland, A. G., 3.
—— ——, Austria-Hungary.—John, C. von, 2; Tietze, E., 1 & 2.
—— ——, Baden.—Schalch, F.; Schnarrenberger, C.; Thuerach, H.
—— ——, Canada. — Bell, R., 1 & 2; Dawson, G. M.
—— ——, ——, chemical laboratory.—Hoffmann, G. C.
—— ——, Cape Colony.—Rogers, A. W., 2.
—— ——, Carolina (N.).—Pratt, J. H.
—— ——, England & Wales. — Allen, H. A.; Cameron, A. C. G.; Flett, J. S., 3; Fox-Strangways, C.; Jukes-Browne, A. J., 3; Pocock, T. I., 1 & 2; Strahan, A., 3; Teall, J. J. H.; Ussher, W. A. E., 2.
—— ——, Hungary.—Bœckh, J.
—— ——, ——, chemical laboratory.—Kalecsinszky, A. von.
—— ——, India, laboratory-assays, &c.—Fermor, L. L.
—— ——, Indiana.—Blatchley, W. S.; Hopkins, T. C., 1–3.
—— ——, Iowa.—Calvin, S.
—— ——, Ireland.—Lamplugh, G. W., 4; Teall, J. J. H.
—— ——, Italy.—Pellati, N., 3.
—— ——, Japan.—Iki, T.; Kanehara, N.; Kochibe, T., 1 & 2; Ogawa, T.; Otsuki, Y.
—— ——, Mysore.—Primrose, A., 1 & 2; Sambasiva Iyer, V. S., 1 & 2; Slater, H. K.; Smeeth, W. F., 1 & 2; Wetherell, E. W., 1–3.
—— ——, New Jersey.—Kuemmel, H. B.; Salisbury, R. D.
—— ——, New York State.—Ellis, M.; Merrill, F. J. H., 1–3.
—— ——, Russia.—Karpinski, A.
—— ——, Saxony.—Credner, H.; Gæbert, C., 2; Weise, E.
—— ——, Scotland.—Harker, A., 2; Teall, J. J. H.
—— ——, Transvaal.—Hall, A. L., 1 & 2; Kynaston, H., 1 & 2; Mellor, E. T.
—— ——, United States.—Gilbert, G. K.; Walcott, C. D., 1–3.
—— ——, ——, index to publications of HAYDEN, KING, POWELL, & WHEELER Surveys.—Schmeckebier, L. F.
—— ——, ——, laboratories of the.—Clarke, F. W., 1 & 2.
—— ——, Victoria.—Gregory, J. W., 2.
—— ——, Wisconsin.—Weidman, S., 1 & 2.
Geological surveying.—Haanel, E.
—— text-books.—Frech, F., 2; Harrison, W. J.
Geology, 1864-1903. — Woodward, H. B.
——, agriculture &.—Bennett, F. J.
——, America (N.), 1902.—Weeks, F. B., 2.
——, applied.—Krahmann, M.; Verri, A., 2; Watts, W. W., 4.
——, Belgium.—Stainier, X., 2.
——, Brazil, 1800–1903.—Branner, J. C.
——, Canadian, 1902.—Ami, H. M.
——, education &.—Rice, W. N.; Watts, W. W., 4.
——, experimental.—Martin, D.
——, first use of the term.—Eastman, C. R., 6.
——, geography &.—Mill, H. R.
——, international co-operation in.—Geikie, Sir Archibald.
——, Italy, 1902.—Bonarelli, G.
——, progress of.—Druce, G. C.; Zittel, K. A. von.
——, Prussian during 200 years.—Schmeisser, K.
——, science of.—Angelis d' Ossat, G. de, 4.
——, Switzerland. — Schardt, H., 2; Sarasin, C., 1 & 2.
——, terrestrial magnetism &.—Creak, E.
——, Würtemberg, &c.—Schuetze, E., 2.
——, Yorkshire, 1900.—Sheppard, T., 3.
George's Bay (Tasm.).—Twelvetrees, W. H., 4.
Georgia (U.S.A.).—Emmons, S. F., 4; Fluker, W. H.; Hayes, C. W., 2, 7, & 8; Stevenson, J. J.; Vaughan, T. W.
Georgian Bay (Ont.).—Comstock, F. M.
Gerablattina.—Sellards, E. H.
Geraldton (W. Austral.).—Chapman, F., 2.
Geralycosa.—Fritsch, A., 2.
Gerhardtite.—Lindgren, W., 7.
Geringswalde (Saxony).—Credner, H., 2.
German Antarctic Expedition.—Drygalski, E. von, 1 & 2; Philippi, E.
—— East Africa.—Kœrt, W.
—— S.W. Africa.—Kuntz, J., 4; Voit, F. W., 2.
Germany, ore-deposits.—Krahmann, M., 2.
—— (N.), alkali-industry. — Galloway, W.
—— (—) Quaternary.—Holst, N. O.
——. *See also* Copper, Glacial, Potash, &c.
Gervillia.—Broili, F., 3; Cossmann, M., 3; Linstow, O. von, 3; Merciai, G.; Tommasi, A.; Yokoyama, M.
Gesso Valley (Piedmont).—Roccati, A.
Gibbula.—Crema, C.
Gibraltar.—Acland, H. D.

Gila Valley (Ariz.).—Lee, W. T.
Ginglymostoma.—Leriche, M., 2.
Gippsland (Victoria).—Ferguson, W. H.
Girardotia.—Loriol, P. de.
Gironde R. (France). — Cahen, A.; Daleau, F.
Gismondite.—Sachs, A., 2.
Giuf, Piz (Tödi District).—Weber, F.
Glacial deposits, Anhalt.—Linstow, O. von, 3.
—— ——, Austria (Upper).—Fugger, E.
—— ——, Bavaria.—Knebel, W. von.
—— ——, Co. Cork.—Muff, H. B.
—— ——, Dakota, Montana, &c. — Upham, W., 5.
—— ——, Hanover.—Menzel, H.
—— ——, Jemtland.—Munthe, H.
—— ——, Lake-District.—Dickson, E., 2.
—— ——, Long I. (N.Y.).—Veatch, A. C.
—— ——, Prussia. — Petersen, J.; Wahnschaffe, F.
—— ——, Schleswig-Holstein.—Gagel, C., 2.
—— ——, Washington.—Upham, W., 6.
—— ——, Westphalia.—Stille, H., 2.
—— ——. *See also* Drift, Quaternary, &c.
—— lakes, Cleveland.—Kendall, P. F.
—— periods.—Hughes, T. McK.; Lorié, J.; Pilgrim, L.; Schulz, A., 2.
—— striæ, Mosbach boulders.—Behlen, H.
—— theory.—Chamberlin, T. C.
—— valleys, New York & Vermont.—Peet, C. E.
—— ——. *See also* Valleys.
Glaciers, Alaska.—Gilbert, G. K., 5.
——, California.—Gilbert, G. K., 4.
——, Colorado.—Henderson, J.
——, Cottian Alps.—Jacob, C.
——, Dauphiné.—Kilian, W.
——, East Anglian.—Harmer, F. W.
——, Garonne Valley.—Fabre, L. A.
——, Greenland.—Engell, M. C.
——, International Commission on.—Finsterwalder, S.; Reid, H. F., 1 & 2.
——, Lepontine Alps.—Dickson, E., 2.
——, Lombardy (N.).—Hess, H.
——, Lucerne post-Pliocene.—Hull, E., 2.
——, Oregon.—Chamberlin, T. C.
——, variation of Swiss &c.—Forel, F. A., 2; Reid, H. F., 1 & 2.
Glaciation, Australian Alps.—Lendenfeld, R.
——, Durham.—Watts, A.
——, Holyhead Mt.—Greenly, E.
——, Iceland.—Pjetursson, H.; Thoroddsen, T., 21.
——, Illinois.—Hubbard, G. D.
——, Inn Valley.—Ampferer, O., 3.
——, Kashmir.—Oldham, R. D., 3.
——, Massachusetts. — Clapp, F. G.; Fuller, M. L., 2.
——, New Hampshire.—Upham, W.
Glaciation, New York State.—Fairchild, H. Le R., 2; Matson, G. C.
——, New Jersey.—Salisbury, R. D.
——, Peru.—Benrath, A.
——, Saxony.—Wuest, E.
——, Sweden (S.).—Holmstrœm, L.
——, Switzerland.—Penck, A.; Schulz, A., 1 & 2.
——, Tasmania.—Gregory, J. W., 4.
——, Transvaal.—Mellor, E. T., 2.
——, Wales (S.).—Howard, F. T.
——, Windermere.—Crewdson, G.
——, Yorkshire.—Carter, W. L.; Dakyns, J. R.
Glamorganshire.—Strahan, A., 3.
Glandaria-limestone, Lebanon.—Rauff, H., 2.
Glandina.—Roman, F.
Glapwell (Derby).—Deacon, M.
Glaserite.—Grossner, B.
Glass-House Mts. (Queensl.).—Jensen, H. J.
—— sand, United States.—Coons, A. T.
Glauber's salt, Bosnia.—Katzer, F., 4.
Glauconia.—Cossmann, M., 2.
'Glauconitic marl,' Callovian. — Rehbinder, B. von, 2.
Glen Roy (Inverness).—Duke, T. A.
Glengower (Victoria).—Herman, H.
Globe District (Ariz.).—Ransome, F. L., 2.
Glogovnica (Croatia). — Gorjanović-Kramberger, D.
Glossograptus.—Hall, T. S.
Gloucestershire.—Gray, J. W.; Reynolds, S. H.; Richardson, L., 1, 4, 5, 7, & 8.
Glycimeris.—Dreger, J.; Etheridge, R., *fil.*
Glyphioceras.—Kolbe, H. J.
Glyptocrinus.—Rowley, R. R.
Glyptotherium.—Osborn, H. F., 2.
Gmelinite, Sicily.—Franco, S. di.
Gneiss, Cameroons.—Esch, E. von.
——, Ecuador.—Reiss, W., 1 & 2.
——, Erythræa.—Manasse, E., 2.
——, Erzgebirge (Saxony).— Beck, R., 2.
——, Greenland.—Nordenskjœld, O., 2; Phalen, W. C.
——, Loch Lomond. — Cunningham-Craig, E. H.
——, Mysore.—Wetherell, E. W., 1 & 3.
——, New York City.—Julien, A. A.
——, Nigeria.—Hubert, H.
——, Perthshire, &c.—Barrow, G.
——, Piedmont.—Colomba, L., 2; Roccati, A.
——, Rofna.—Rüetschi, G.
——, Ticino.—Klemm, G.
——, Tongking.—Hubert, H., 2.
——, Tuscany.—Manasse, E.
——, Tyrol.—Petrascheck, W., 2.
Godavari R. (Bombay Pres.).—Holland, T. H., 4.
Gold, Alaska.—Brooks, A. H.; Emmons, S. F., 4; Kinzie, R. A.; Menhenhall, W. C., 2.

Gold, Angola.—Cuninghame, B. A.
——, Arizona.—Blake, W. P.; Church, J. A.
——, Assam.—Maclaren, J. M., 3.
——, Australia (S.).—Duffield, T.
——, Australia (W.).—Anon., 25; Gibson, C. G., 1 & 2; Jackson, C. F. V.; Maitland, A. G., 1–4; Rickard, T. A.
——, Bengal Pres.—Maclaren, J. M., 2.
——, Brazil.—Derby, O. A.; Scott, H. K., 1 & 2.
——, British Columbia.—Atkin, A. J. R.; Macbride, R.; Vicaire, A.
——, California.—Lakes, A., 2; Lindgren, W.
——, Canada.—Lindgren, W., 4.
——, Cape Colony.—Schwarz, E. H. L., 5.
——, Carolina (N.).—Pratt, J. H.
——, Ceylon.—Dixon, G. G.
——, Colorado.—Lakes, A., 5; Purington, C. W.; Rickard, T. A., 2; Stevens, E. A.
——, Congo.—Buttgenbach, H.
——, Egypt.—Alford, C. J.
——, England.—Collins, J. H.; Maclaren, J. M.
——, Georgia.—Eckel, E. C.; Fluker, W. H.
——, Ireland.—Kinahan, G. H., 2 & 3; Maclaren, J. M.
——, Klondyke.—Obalski, T.
——, Manicaland.—Sawyer, A. R.
——, Mexico.—Lindgren, W., 4; Ordoñez, E., 2.
——, Montana.—Lindgren, W., 2; Weed, W. H., 1 & 3.
——, Mysore.—Grundy, J.
——, Natal.—Gray, C. J.
——, Nevada.—Spurr, J. E., 2.
——, New Caledonia.—Glasser, E.
——, New South Wales.—Pittman, E. F.
——, New Zealand.—Macgowan, J.
——, Nova Scotia.—Faribault, E. R.; Gilpin, E., Jun., 4; Woodman, J. E., 1 & 2.
——, Ontario.—Carter, W. E. H.; Miller, W. G.
——, Peru.—Pinzás, E. J., 2.
——, Queensland.—Ball, L. C., 1–3; Dunstan, B.; Lewis, A. A
——, Rhine R.—Neumann, B.
——, Russia.—Morozevich, I., 2; Simmersbach, B., 2.
——, Scotland & Wales.—Maclaren, J. M.
——, Sudan (W.).—Arsandaux, H.
——, Tasmania.—Twelvetrees, W. H., 3 & 7–10; Waller, G. A., 2.
——, Transvaal.—Bleloch, W.; Draper, D., 1 & 2; Hatch, F. H., 3; Kuntz, J., 3; Liebenam, W. A.; Molengraaff, G. A. F.; Rathbone, E. P.; Sawyer, A. R., 2–4; Wilkinson, D.
——, Tyrol.—Isser Gaudententhurm, M. von; Neugebauer, F.
——, United States production.—Lindgren, W., 4; Robarts, G. E.
Gold, Utah.—Boutwell, J. M., 2; Dean, G. H.
——, Victoria.—Anderson, W. R.; Baragwanath, W., jun.; Bradford, W., 1–10; Gregory, J. W.; Herman, H., 2 & 3; Howitt, A. M.; Howitt, A.W.; Hunter, S. B., 2; Kitson, A. E., 5; Lindgren, W., 6; Whitelaw, H. S.
——, Washington.—Smith, G. O.
——. *See also* Auriferous.
Gold-dredging, Otago.—Seelye, F. T.
Goldsborough (Victoria).—Kitson, A. E., 5.
Gomphognathus.—Broom, R., 10.
'Gondwana Land.'—Suess, E., 2.
—— Series, Kashmir.—Nœtling, F.
Goniograptus.—Ruedemann, R., 3.
Goniometer.—Leiss, C.; Smith, G. F.; Stœckl, K.; Souza-Brandão, V. de, 3.
Goniomya.—Loriol, P. de.
Goniophora.—Clarke, J. M., 2.
Goodallia.—Dall, W. H.
Goossensia.—Cossmann, M., 4.
Gordon (Victoria).—Bradford, W., 8; Howitt, A. M.
Gorges, New York, &c.—Watson, G. C.
Gorgona, I. of (Tuscany).—Manasse, E.
Gorran Haven (Cornwall).—Prior, G. T.
Göstling (Lower Austria).—Kittl, E., 2.
Gothland (Sweden).—Holmstrœm, L.; Tœrnquist, S. L.
GOUGH's Cavern, Cheddar.—Davies, H. N.
Gouldia.—Dall, W. H.
Gouritz R. (Cape Colony).—Rogers, A. W.
Gramat, Causse de (Lot).—Viré, A., 2.
Grammoceras.—Beck, H.; Yokoyama, M., 2.
Grammysia.—Clarke, J. M., 2.
Grandcour (Vaud).—Renevier, E.
Grande, Rio (New Mex.).—Herrick, C. L., 2.
Grange Quarry, near Brassington (Derby).—Arnold-Bemrose, H. H., 3.
Graniphyro-liparose-alaskose.—Iddings, J. P., 3.
Granite, Aberdeen.—Anon., 24.
——, Africa (S.).—Mennell, F. P.
——, Cameroons.—Esch, E. von.
——, Carolina (N.).—Watson, T. L., 3.
——, Chile.—Pœhlmann, R.
——, Cornwall.—Flett, J. S., 3.
——, Dandenong.—Sutherland, J. M.
——, Elba.—Achiardi, G. d', 4.
——, Erythræa.—Manasse, E., 2.
——, Eskdale.—Walker, E. E.
——, Greenland.—Nordenskjœld, O., 2; Phalen, W. C.
——, Ingleton.—Elsden, J. V., 5.
——, Lake-District.—Harker, A.
——, Leicestershire.—Rastall, R. H.
——, Madagascar.—Lacroix, A., 7.
——, Mysore.—Slater, H. K.; Wetherell, E. W.
——, Nigeria.—Hubert, H.
——, Shantung.—Rinne, F., 3.

Granite, Sioux Falls.—Todd, J. E., 2.
——, Skye.—Harker, A., 2.
——, Sumatra.—Volz, W.
——, Ticino banded.—Klemm, G.
——, Tongking.—Hubert, H., 2.
——, Transvaal.—Corstorphine, G. S., 3; Dœrffel, D., 3; Horwood, C. B., 1 & 2.
Granitic porphyry, Rofna.—Rüetschi, G.
Granulite, Ceylon.—Coomáraswámy, A. K., 5.
——, Pyrenees.—Roussel, J.
——, Saxony.—Credner, H., 2; Kæstner, M.
Graphite, analysis of.—John, C. von, 2.
——, Bohemia.—Bilharz, O.
——, Ceylon.—Coomáraswámy, A. K., 4; Stonier, G. A., 3; Struthers, J., 12.
——, India.—Stonier, G. A., 3.
——, New York.—Emmons, S. F., 4.
——, Ontario.—Carter, W. E. H.
——, Piedmont.—Sacco, F., 2.
——, production of.—Brough, B. H.
——, Urals.—Kunz, G. F.
Graptolites, Ordovician.—Hall, T. S.; Tœrnquist, S. L.
——, Silurian.—Elles, G. L., 1 & 2; Malaise, C., 3; Ruedemann, R., 2 & 3; Wood, E. M. R.
Graslitz (Bohemia).—Andrimont, R. d', 3.
Grateloupia.—Dall, W. H.
Gravels, Austria (Lower).—Depéret, C.; Hœrnes, R.
——, Cambridgeshire.—Marr, J. E., 1 & 2.
——, Cape Colony.—Schwarz, E. H. L., 5.
——, Gloucester.—Gray, J. W.
——, Kent.—Johnson, J. P., 4.
——, Massachusetts.—Clapp, F. G.
——, Middlesex & Surrey.—Monckton, H. W., 7.
——, Minsk Gov.—Missuna, A., 2.
——, Norwood plateau.—Hogg, A. J.; Robarts, N. F., 2.
——, Oxfordshire.—Bell, A. M.; Foley, M. C.
——, Pomerania.—Linstow, O. von.
——, Salisbury plateau.—Hughes, T. McK., 2.
——, Thames Valley (N.).—Irving, A., 3.
Gravity, variations, India.—Fisher, Rev. O., 3; Schweydar, W.
Gray's (J. E.) types, locality of.—Blanford, W. T.
Grays (Essex).—Kennard, A. S.; Johnson, J. P.
Grays Thurrock (Essex).—Hinton, M. A. C., 3; Holmes, T. V., 2.
Great Britain, geological atlas of.—Woodward, H. B., 8.
——. *See also* England, &c.
Great Namaqualand (S.A.). *See* Namaqualand.
Great Salt Lake (Utah).—Jenney, W. P.
Greece.—Cayeux, L.; Philippson, A.; Renz, C., 3.
Green Beds, Loch Lomond.—Cunningham-Craig, E. H.
Greenland.—Bœggild, O. B., 1 & 2; Engell, M. C.; Fraas, E., 2; Krogh, A.; Madsen, V.; Nordenskjœld, O., 2; Phalen, W. C.; Pratt, J. H., 7; Ravn, J. P. J., 2; Skeat, E. G.; Thomsen, J.
Greenockite.—Lovisato, D.
Greensand, Antrim.—Welch, R.
Greenstone-schists, San Juan Mts. (Colo.).—Howe, E.
Greenstones, Cornwall.—Flett, J. S., 3.
Greymouth District (N.Z.).—Macleod, H. N.
Greywethers. *See* Sarsen-stones.
Grimsel Massif (Switzerland).—Delebecque, A.
Griphopithecus.—Abel, O., 2.
Grisons (Switzerland).—Delebecque, A.; Rüetschi, G.
Grits, Loch-Lomond.—Cunningham-Craig, E. H.
Grodno Gov. (Russia).—Missuna, A.
Grorudite-rocks, Transbaikal.—Karpinski, A., 3.
Grosszössen (Saxony).—Gæbert, C.
Grozny (Caucasus).—Yushkin, E.
Grulich (Bohemia).—Kořistka, K.
Grund (Harz).—Harbort, E., 2.
Guadalquivir R. (Spain).—Douvillé, R., 2.
Guadeloupe (W.I.).—Moissan, H.
Guatemala (C. Am.).—Sapper, K., 1–4.
Guerrero (Mex.).—Bœse, E., 5.
Guntur volcano (Java).—Volz, W., 2.
Gur, Lough (Limerick).—Reid, C., 3.
Gurlt, A. *See Obit.*, Philippson, A.
Gurney, H. P. *See Obit.*, Fletcher, L., 4.
Gwendraethfawr (Caermarthen).—Cantrill, T. C.
Gymnoptychus.—Matthew, W. D.
Gympie (Queensl.).—Lewis, A. A.
Gypsum, crystals.—Rinne, F., 4.
——, Cumberland.—Burns, D.
——, dolomitic limestone with.—Hœfer, H.
——, Iowa.—Wilder, F. A.
——, New York.—Merrill, F. J. H., 2.
——, origin of.—Fairchild, H. Le R., 3.
——, United States production.—Adams, G. I., 5.
——, Utah.—Emmons, S. F., 4.
——, Virginia.—Eckel, E. C., 4.
Gyracanthides.—Woodward, A. S., 6.

Haddenham (Bucks).—Davies, A. M.
Hadrianus.—Hay, O. P., 3.
Hæmatite, Chota Udepur State.—Henry, T. A.
—— crystals.—Mackee, G. W.
——, Perm.—Nikolaev, D.
——. *See also* Iron, &c.
Hainault (Belgium).—Rutot, A., 1 & 5.
Haine-Saint-Pierre (Hainault).—Rutot, A.
Hainrich Mt. (Thuringia).—Kaiser, E., 2.
Halicapsa.—Squinabol, S., 3.

Halifax (Yorks).—Simpson, W.
Haliotis.—Bial de Bellerade, —.
Haliserites.—White, D.
Halloysite.—Schaller, W. T.
Hallsands (Devon).—Worth, R. H.
Halolimnic fauna, Lake Tanganyika.—Hudleston, W. H.
Halorites.—Vredenburg, E., 4.
Halysites. — Etheridge, R., *fil.*, 4; Whitfield, R. P., 2.
Hamlin, Fort (Alaska).—Mendenhall, W. C.
Hanau (Prussia).—Rausenberger, J.
Hanging Valleys, New York.—Tarr, R. S.
Hanover (Germany).—Hoyer, W., 2 & 3; Menzel, H.; Wollemann, A., 4; Zimmermann, E.
Hanter Hill (Radnor).—Raw, F.
Haploceras.—Uhlig, V.
Haplophragmium.—Chapman, F.
Harpoceras.—Struebin, K.; Yokoyama, M.
Häring (Tyrol).—Dreger, J.
Harrietville (Victoria).—Bradford, W., 9.
Harz (Germany).—Blasius, W., 1 & 3; Brandes, G.; Ermisch, K.; Harbort, E.; Klockmann, F., 2.
Hassan (Mysore).—Primrose, A., 2.
Hastings (Sussex).—Abbott, W. J.
HATCHER, J. B. *See Obit.*, Holland, W. J.; Scott, W. B.
Hatherley (Transvaal).—Kynaston, H.
Hauericeras.—Yabe, H.
Hausmannite.—Gorgeu, A.
HAUTEFEUILLE, —. *See Obit.*, Wallerant, F., 2.
Haverfordwest (Pembroke).—Reed, F. R. C., 3.
Havre (Normandy).—Dubus, A., 1 & 2; Leprévost, E.
Hawaiian Is. (Pacific).—Cross, W., 2; Hitchcock, C. H., 2; Wood, E.
HAYDEN Memorial Geological Award, 1902.—Anon., 13.
Heathfield (Sussex). — Pearson, R.; Woodward, H. B., 7.
Hecticoceras.—Uhlig, V.
Hedycarya.—Deane, H.
Heersum (Hanover).—Hoyer, W., 2.
Heidelberg (Baden).—Schweydar, W.
Heinzia.—Hyatt, A.
Helicoceras.—Yabe, H.
Heligoland I. (North Sea).—Conze, A.; Kœrt, W.; Wolff, W.
Heliosphæra.—Squinabol, S., 3.
Helix.—Bédé, P., 5.
Hellandite.—Brœgger, W. C.
Helvetian.—Schalch, F., 2.
Hemiacodon.—Wortman, J. L.
Hemiaster.—Bather, F. A.
Hemistylops.—Ameghino, F., 2.
Henley-on-Thames (Oxon).—Foley, M. C.
Henricosbornia.—Ameghino, F., 2.
Hérault (France).—Gazel, A.
Herberton (W. Austral.). — Cameron, W. E., 2.
Herblingen (Schaffhausen). — Nuesch, J.
Hernösand (Jemtland).—Munthe, H.
Hertfordshire.—Kidner, H.; Woodward, H. B., 6.
Herve plateau (Liége). — Renier, A., 2.
Herzegovina.—Dreger, J., 2; Katzer, F., 2 & 3.
Hesperornis.—Lucas, F. A., 3.
Hesse (Germany).—Bauer, M.; Chelius, C., 1-3; Kayser, E.; Neumann, B.; Parkinson, H.; Reinach, A. von, 2; Schwantke, A.
Hessenbergite.—Gruenling, F.
Hessle (Yorks).—Davison, C., 7.
Heterocœnia.—Janensch, W.
Heterolambda.—Ameghino, F., 2.
Heteronema.—Ulrich, E. O.
Heterosteus.—Jækel, O., 3.
Heterotrypa.—Ulrich, E. O.
Heulandite.—Gaubert, P., 5.
Heuscheuergebirge (Silesia). — Flegel K.; Petrascheck, W., 3 & 5.
Hexagonella.—Etheridge, R., *fil.*, 3.
Hexapyramis & *Hexastylus.*—Squinabol, S., 3.
Hicksia.—Delgado, J. F. N., 2.
Hildesheim (Hanover).—Hoyer, W.
Hildoceras.—Yokoyama, M., 2.
Hildoceratidæ.—Buckman, S. S., 4.
Hills, Flanders.—Cornet, J., 2.
Himalayites.—Bœhm, G.
Himalaya Mts. (Asia).—Crick, G. C., 6; Diener, C.; Garwood, E. J.; Hayden, H. H.; Nœtling, F., 1, 3, & 4; Suess, E., 3; Uhlig, V.
Hindu-Kush (India).—Suess, E., 3.
Hipparion.—Ameghino, F.
Hippopotamus.—Bortolotti, C.
Hoferia.—Broili, F., 3.
Hohenzollern (Germany).—Schmidt, A.; Schuetze, E.
Hokkaido (Japan).—Yabe, H.; Yonekra, K.
Holcostephanus.—Uhlig, V.
Holland.—Calker, F. J. P. van.
Höllenstein (Lower Austria).—Geyer, G., 1 & 3.
Holmbury Hill (Surrey).—Herries, R. S.
Hologyra.—Picard, E.
Holyhead (Anglesey).—Greenly, E.
Holyoke Range (Mass.).—Emerson, B. K.
Homalonotus.—Fox, H., 2; Lake, P.
Homberg a. d. Efze (Hesse).—Bauer, M.; Reuber, O.
Homberg a. d. Ohm (Hesse).—Schwantke, A., 3.
Homotrypella.—Ulrich, E. O.
Hönne R. (Westphalia).—Denckmann, A.
Hopeite.—Schulten, A. de.
Hope's Nose (Devon).—Hunt, A. R.
Hoplites.—Bœhm, G.; Lang, W. D.
Hoplitoides.—Esch, E. von.
Hoplopara.—Ravn, J. P. J., 2.

Hornblende derived from pyroxene.—Gordon, C. H.
——. *See also* Amphibole.
Hornung Valley (Lower Austria).—Zeleny, V.
Horse, ancestry of the.—Lydekker, R.
Horsham (Victoria).—Dennant, J.
Hospital-Hill Shales, Johannesburg.—Marriott, H. F.
Hostimella.—Potonié, H., 2.
Hot Springs. *See* Thermal waters.
Houldsworth Colliery (Ayr).—Smith, W.
Hoyoux Valley (Liége).—Lespineux. G., 2; Lohest, M., 5.
Hualgayoc (Peru).—Bernard, C.
Huallanca (Peru).—Pinzás, E. J., 2.
Huancavelica (Peru).—Hadley, W. M.; Tamayo, A.; Umlauff, A. F.
Huánuco (Peru).—Ochoa, N. G.
HUDLESTON, W. H. *See* Anon., 12.
Hudson Bay (Canada).—Low, A. P., 1 & 2.
—— River Beds, Albany.—Ruedemann, R.
—— —— Cañon (Atlantic).—Spencer, J. W.
—— Valley (N.Y.).—Peet, C. E.
Huelgoat (Britanny).—Martonne, E. de, 4.
Huelva (Spain).—Schmidt, C., 4.
Huitzuco (Mexico).—Villarello, J. D.
Hull (Yorks).—Crofts, W. H.; Sheppard, T., 1–3, 5 & 6.
Humboldt Range (Nevada).—Louderbeck, G. D.
Hungary.—Bœckh, J.; Diener, C., 4; Halaváts, G., 1 & 2; Handmann, R.; Horusitzky, H., 1-3; Inkey, B. von, 1 & 2; Kalecsinszky, A. von, 1, 3, & 4; Liffa, A.; Lœrenthey, E., 1–4; Pálfy, M. von, 1–3; Papp, K.; Pošewitz, T.; Schafarzik, F., 1 & 2; Szadeczki, J.; Timko, E.
——. *See also* Carpathian Mts., Transylvania, &c.
Hurricane Fault, Utah.—Huntington, E.
Hurst Wood (Surrey).—Herries, R. S.
Hvittis (Finland).—Borgstrœm, L. H.
Hyæna & *Hyænarctos*.—Schlosser, M., 2.
Hyænognathus.—Merriam, J. C.
HYATT, A. *See Obit.*, Crosby, W. O.
Hybodus.—Linstow, O. von, 2.
Hyderabad (Deccan).—Grundy, J., 3.
Hydrequent (Pas-de-Calais).—Gosselet, J., 3.
Hydrogöthite.—Zemyatčenski, P.
Hylopus.—Matthew, G. F., 3.
Hyolithes.—Delgado, J. F. N., 2.
Hyperite, Iceland.—Thoroddsen, T., 4.

Iano (Tuscany).—Barsanti, L.
Ibex.—Pavlov, M., 2.
Ice, North American buried.—Tyrrell, J. B., 2.
Ice-Age, Alps.—Penck, A.; Schulz, A., 1 & 5.
Ice-Age, Durham Co.—Watts, A.
——, recurrence of.—Howorth, Sir Henry H.; Hughes, T. McK.
Ice-fields, Greenland.—Engell, M. C.
Iceland.—Pjetursson, H.; Thoroddsen, T., 1–24.
Ichnytes.—Vinassa de Regny, P. E., 3.
Ichthyosaurus.—Jækel, O., 6; Sauvage, H. E., 2; Yakovlev, N., 3.
Ictops.—Matthew, W. D.
Idaho (U.S.A.).—Finlay, J. R., 1 & 2; Lindgren, W., 5; Russell, I. C., 2; Upham, W., 5.
Idocrase.—Klein, C., 3.
Igneous rocks, Alaska.—Emerson, B. K., 3.
—— ——, analyses of.—Clarke, F. W., 2; Washington, H. S., 1–3.
—— ——, average composition of.—Mennell, F. P., 2.
—— ——, Bristol.—Morgan, C. L.
—— ——, British Columbia.—Barber, W. B.
—— ——, Charnwood.—Watts, W. W., 2.
—— ——, classification by chemical composition.—Iddings, J. P.
—— ——, Dardanelles.—English, T.; Flett, J. S.
—— ——, Devon (S.).—Ussher, W. A. E., 2.
—— ——, Ecuador.—Reiss, W., 1 & 2.
—— ——, Erythræa.—Aloisi, P., 2; Manasse, E., 2.
—— ——, grain of.—Lane, A. C., 2 & 3.
—— ——, Idaho, &c.—Russell, I. C., 2.
—— ——, Lake-District.—Harker, A.
—— ——, Lake Chad.—Gentil, L.
—— ——, Madagascar.—Lacroix, A., 7.
—— ——, magnetic stability of.—David, P.
—— ——, Moravia.—Suess, F. E.
—— ——, New Caledonia.—Glasser, E.
—— ——, New Zealand.—Mackay, A.
—— ——, ore-deposits &.—Spurr, J. E., 3.
—— ——, origin of.—Goodchild, J. G., 5 & 6.
—— ——, Radnor.—Raw, F.
—— ——, Rhodesia.—Broad, W.
—— ——, Skye Tertiary.—Harker, A., 2.
—— ——, Somerset.—Boulton, W. S.
—— ——, Sudan.—Hubert, H., 4.
—— ——, Tyrol.—Ippen, J. A.; Kolenec, F.
—— ——, Wales (N.).—Cope, T. H., 2.
—— ——. *See also* Andesite, Magmas, Volcanic, &c.
Iguala (Mex.).—Hall, C. E.
Iguanodon bernissartensis.—Harmer, S. F.
Ikushunbetsu (Hokkaido).—Yonekra, K.
Ilford (Essex).—Hinton, M. A. C., 1 & 2; Johnson, J. P., 1, 3, & 8.
Illænus.—Reed, F. R. C., 4.
Illinois (U.S.A.).—Alden, W. C.; Emmons, S. F., 4; Fuller, M. L., 3; Hubbard, G. D.

Ilmenite.—Bavink, B.; Hussak, B.

Immendingen (Würtemberg).—Dietrich, W.

Implements, flint & stone.—Abbott, C.C.; Bauer, M., 2; Bell, A. M.; Blasius, W.; Daleau, F.; Davies, H. N.; Dubus, A., 1 & 2; Evelyn, A. d'; Gower, H. D.; Holmes, W. H.; Hunt, A. R.; Johnson, J. P., 1, 4, 6, & 7; Kennard, A. S.; Nuesch, J., 2; Rutot, A., 1 & 3; Schœnland, S.; Stopes. C.; Treacher, L.

——. *See also* Flint.

India, gravity-changes in.—Fisher, Rev. O., 3.

——, petroleum.—Evans, J. W.

——, water-supply.—Wilson, H. M.

——. *See also* Coal, Earthquakes, Gold, Graphite, Manganese, &c.

Indian Territory (U.S.A.).—Adams, G. I., 4.

Indiana (U.S.A.).—Blatchley, W. S.; Breeze, F. J.; Epperson, J.; Fœrste, A. F., 1 & 2; Fuller. M. L., 1 & 3; Hopkins, T. C., 1–3; Kindle, E. M., 2; Kinney, B. A.; Mills, W. M.

Indo-China (Asia).—Monod, G. H.; Zeiller, R., 2.

Infusorial earth, Victoria.—Herman, H.

——. *See also* Tripoli.

Ingleton (Yorks).—Elsden, J. V., 5.

Inn Valley (Tyrol).—Ampferer, O., 2.

Inoceramus.—Airaghi, C.; Pálfy, M. von.

Insects, Carboniferous.—Sellards, E. H.; Zeiller, R., 2.

——, Jurassic.—Walther, J., 3.

——, mineralized.—Lacroix, A., 4.

——, Tertiary.—Meunier, F.

Integrata.—Ulrich, E. O.

Interference-figures, calcite.—Muegge, O.

Interhippus.—Ameghino, F., 2.

Ionian Is. (Adriatic).—Renz, C.

Iowa (U.S.A.).—Beyer, S. W.; Calvin, S., 1–4; Hœn, A. B.; Knight, N.; Leonard, A. G.; Macbride, T. H.; Norton, W. H.; Savage, T. E.; Udden, J. A.; Wilder, F. A.

Ireland, coast-changes.—Parkinson, J.

——, gold.—Kinahan, G. H., 1–3; Maclaren, J. M.

——, minerals.—Seymour, H. J.

——, mines, &c.—Atkinson, J. B., 1–3; Foster, Sir Clement Le N.

——. *See also* Caverns, Geological Survey, &c.

Iron, Belgium.—Lambert, G.

——, California.—Diller, J. S., 2.

——, Carolina (N.).—Keith, A.

——, Cuba.—Birkinbine, J.

——, Durham.—Lee, M.

——, Finland.—Henriksen, G.

——, Georgia.—Hayes, C. W., 7.

——, Greenland.—Phalen, W. C.

——, Hesse.—Chelius, C., 1–3.

——, Ireland.—Gough, G. C.; Kinahan, G. H., 2.

——, Lake-Superior district.—Leith, C. K.; Macco, A.

Iron, Luxemburg.—Pearse, J. W.

——, magnetometric measurement of deposits of.—Haanel, E.

——, meteoric.—Angermann, E., 3; Berwerth, F.; Brezina, A., 2; Fletcher, L., 1–4; Klein, C., 2; Sommerfeldt, E., 2.

——, Michigan.—Bayley, W. S.

——, Minnesota.—Clements, J. M., 2; Thomas, K., 1 & 2.

——, Mysore.—Primrose, A., 2.

——, Nassau.—Krahmann, K.; Krecke, F.

——, New Caledonia.—Glasser, E.

——, New South Wales.—Pittman, E. F.

——, Norway.—Vogt, J. H. L., 2.

——, Ontario.—Carter, W. E. H.; Leith, C. K., 2; Miller, W. G., 1 & 2.

——, origin of deposition in lakes.—Gough, G. C.

——, Peru.—Duval, A.; Pinzás, E. J.; Venturo, P. C.

——, phosphorus &.—Launay, L. de, 2.

——, Queensland.—Ball, L. C., 6.

——, Spain.—Schmidt, C., 4.

——, Styria.—Canaval, R.; Redlich, K. A.

——, Sweden.—Hecker, —.

——, Tennessee.—Keith, A., 1.

——, titanic.—Doby, G.

——, Ufa Gov.—Konushevski, L., 2.

——, United States, production.—Birkinbine, J.

——, Ural Mts.—Konushevski, L.; Morozevich, I., 3; Mrazec, L.; Nikolaev, D., 1 & 2.

——, Wisconsin.—Weidman, S., 2; Winchell, N. H., 5.

——. *See also* Chromite, Magnetite, Meteoric, &c.

Iron-glance, serpentine with.—Zeleny, V.

Ironstone-conglomerate, Cape Patton.—Dennant, J.

Irr, Lake (Upper Austria).—Függer, E.

Isa Khel (Punjab).—Simpson, R. R., 2.

Isa R. (Urals).—Vuisotzki, N.

Ischyodus.—Leriche, M.

Ischyromys.—Matthew, W. D.

Isechinus.—Lambert, J.

Iseo, L. (Lombardy).—Hess, H.

Island, new, off Borneo.—Schmidt, C.

Isochilina.—Clarke, J. M., 12.

Isocyprina.—Cossmann, M., 3.

Isopoda, Jurassic.—Remeš, M.

Issachki (Poltava Gov.).—Morozevich, I.

Istria (Austria).—Moser, L. K., 1 & 2.

Italy, volcanoes of Central, 1899–1903.—Sabatini, V., 2.

——. *See also* Lombardy, &c.

Ithaca (N.Y).—Tarr, R. S., 2.

Jacupirangite.—Twelvetrees, W. H., 6.

Jade.—Bauer, M.; Collyer, H. C.

Jakobshavn (Greenland).—Engell, M. C.

Jalomita R. (Rumania).—Bergeron, J., 2.
Jalovybach (Bohemia).—Liebus, A.
Jamaica (W.I.).—Dall, W. H.
James Bay (Canada).—Low, A. P.
James R. (S. Dak.).—Todd, J. E., 3.
Jamestown (Colo.).—Lakes, A., 5.
Jammu (N.W. India).—Simpson, R. R.
Japan.—Heurteau, C. E.; Hobbs, W. H., 3; Honda, K.; Iki, T.; Imamura, A., 1–4; Kanehara, N.; Kochibe, T., 1 & 2; Lozé, E.; Ogawa, T.; Omori, J., 3–6; Otsuki, Y.; Tokunaga, S.; Yabe, H.; Yokoyama, M., 1 & 2; Yonekra, K.
Java (D.E.I.).—Van Bosse, P.; Volz, W., 2; Wichmann, A.
Jemez (New Mex.).—Reagan, A. B., 1 & 2.
Jemtland (Sweden).—Kjellmark, K.; Munthe, H.
Jherria (Bengal).—Stonier, G. A., 2.
Jimtown. *See* Jamestown.
Joachim Valley (Bohemia).—*See* St. Joachim.
Johannesburg (Transvaal).—Hatch, F. H., 6.
Joplin (Mo.).—Crane, W. R., 2; Smith, W. S. T.; Sterrett, D. B., 2.
Jorat (Berne).—Baumberger, E., 2.
Jordan Valley (Palestine).—Bonney, T. G., 2.
Jordanite.—Sachs, A., 3.
Judica, Monte (Catania).—Checchia-Rispoli, G., 2.
Junction-beds, consolidation &.—Lamplugh, G. W., 3.
Jura, French.—Fournier, E., 4.
——, Swiss.—Baumberger, E., 1 & 2; Struebin, K., 2.
——, Tertiary freshwater limestone.—Schmidt, C., 2.
—— -Triassic, Victoria, &c.—Etheridge, R., *fil.*, 2.
Jurassic, Alaska.—Emerson, B. K., 3.
——, Austria (Lower).—Trauth, F.
——, Bavaria.—Walther, J., 3.
——, Brescia.—Cacciamali, G. B., 1.
——, Cambridgeshire.—Marr, J. E., 1 & 2.
——, Daghestan.—Renz, C., 4.
——, Dauphiné.—Kilian, W., 3; Lory, P., 1 & 2.
——, Greenland,—Fraas, E., 2; Madsen, V.; Skeat, E. G.
——, Hanover.—Hoyer, W., 2.
——, Herzegovina.—Katzer, F., 3.
——, Japan.—Yokoyama, M., 1 & 2.
——, Lebanon.—Rauff, H., 2.
——, Lena District.—Yakovlev, N., 2.
——, Luxemburg.—Greindl, Baron, —.
——, Moravia.—Rzehak, A., 3.
——, Morocco.—Gentil, L., 2.
——, New Zealand.—Park, J., 1 & 4.
——, Normandy.—Douvillé, R.
——, Poland.—Rehbinder, B. von, 1 & 2.
——, Portugal.—Choffat, P.
——, Pyrenees.—Depéret, C., 3.
Jurassic, Russia.—Ilovaïski, D., 1 & 2; Rehbinder, B. von, 1 & 2.
——, Savoy.—Rœssinger, G., 2.
——, Spain.—Mallada, L.
——, Spiti.—Uhlig, V.
——, Stramberg.—Remeš, M.
——, Sula Is.—Bœhm, G.
——, Venetia.—Campana, D. del.
——, Victoria.—Etheridge, R., *fil.*, 2.
——, Worcestershire.—Buckman, S. S., 3.
——, Yorkshire.—Fox-Strangways, C.

Kabania (Tomsk Gov.).—Tanfelev, G.
Kadur (Mysore).—Primrose, A., 2.
Kafué R. (S.A.).—Ferguson, D.
Kalgoorlie (W. Aust.).—Rickard, T. A.
Kalksberg (Lr. Austria).—Toula, F., 2.
Kalligramma.—Walther, J., 3.
Kalmar (Gothland).—Munthe, H., 2.
Kamchatka (Siberia).—Bogdanovich, K.
Kangchenjunga Mt. (Himalayas).—Freshfield, D. W.; Garwood, E. J.
Kanopolis (Kan.).—Crane, W. R.
Kansas (U.S.A.).—Adams, G. I., 4; Broadhead, G. C., 2; Crane, W. R., 1 & 2; Heydrick, W. H.
Kaolin.—Dunstan, W. R., 2; Lee, M.; Weyberg, Z., 1 & 2.
Karadagh (Persia).—Stahl, A. F.
KARRER, F. *See Obit.*, Geikie, Sir Archibald, 4.
Karroo Beds, Cape Colony.—Seeley, H. G., 1–3.
—— gold, Cape Colony.—Schwarz, E. H. L., 5.
Karwendel Mts. (Tyrol).—Ampferer, O.
Kashmir (India).—Nœtling, F.; Oldham, R. D., 2 & 3.
Katanga district (Congo).—Buttgenbach, H.
Keewatin District (Canada).—Dowling, D. B.; Tyrrell, J. B.
Kelei R. (Sumatra).—Buecking, H., 4.
Kellerwald (Hesse).—Walther, J., 2.
Kent.—Bennett, F. J., 2; Johnson, J. P., 4; Kidner, H.; Skeats, E. W., 2; Stopes, C.
Kentucky (U.S.A.).—Bain, H. F.; Fœrste, A. F.; Hovey, H. C.; Tight, W. G.; Ulrich, E. O., 3.
Keratophyres, Berwyn & Breidden Hills.—Jevons, H. S.
Kerosene-shale. *See* Oil-shale.
Kersantonite.—Ippen, J. A.; Rinne, F., 3.
Kesh Caves (Sligo Co.).—Praeger, R. L., 4.
Kesslerloch Cave (Schaffhausen).—Nuesch, J., 2; Schœtensack, O.; Studer, T.
Kesztölcz (Hungary).—Kalecsinszky, A. von.
Keuper, Devon.—Irving, A., 1 & 2; Somervail, A., 1 & 3.

Keuper, Weimar.—Compter, G.
——. *See also* Trias.
—— -Rhætic, unconformity, Gloucestershire, &c.—Richardson, L.
Khakhadian Massif (Sudan).—Arsandaux, H., 1 & 3.
Kharkov Gov. (Russia).—Armashevski, P.
Kherson Gov. (Russia).—Faas, A.; Tapesenko, V.
Khost (Baluchistan).—Grundy, J., 9 & 14.
Kiau-chau Bay (Shantung).—Rinne, F., 3.
Kiirunavaara (Norrbotten).—Hecker, —.
Kilacheri (Madras).—Rau, H. N.
Killerjoch Mt. (Tyrol).—Ohnesorge, T.
Kimberly (Minn.).—Thomas, K., 2.
King, C. *See Obit.*, Raymond, R. W.
Kingsbridge (Devon).—Ussher, W. A. E., 2.
Kingston (Ont.).—Ells, R. W.
Kirchberg, Upper & Lower (Würtemberg).—Kranz, W.
Kirchbichl (Tyrol).—Dreger, J.
Kirchheim (Würt.).—Bræuhæuser, M.
Kirmington (Lincs.).—Stather, J. W., 1 & 2.
Kisel (Perm.).—Mrazec, L.
Kishengarh (India).—Vredenburg, E.
Kishon Valley (Palestine).—Bonney, T. G., 2.
Kishtim (Perm).—Nikolaev, D.
Kitchen-middens, Andaman Is.—Holland, T. H., 2.
Kitzelberg (Silesia).—Langenhan, A.
Klerksdorp (Transvaal).—Bleloch, W.; Dœrffel, D., 4; Draper, D., 1 & 2; Higgs, M. S., 2; Kuntz, J., 3; Voit, F. W.; Wilkinson, D.; Zimmermann, J.
Klingen Valley (Saxony).—Andrimont, R. d', 3.
Klippen, Moravia.—Rzehak, A., 3.
Klondyke (N.W. Canada).—Obalski, T.
Knemiceras.—Hyatt, A.
Knight, W. C. *See Obit.*, Williston, S. W., 2.
Knobs, concretions.—Todd, J. E.
Knolls, Issachki diabase.—Morozevich, I.
Kohlbach (Styria).—Canaval, R.
Kolar (Mysore).—Wetherell, E. W.
Kolguev I. (Arctic).—Knipovich, N.
Komai (Bengal).—Hayden, H. H., 2.
Komarom Com. (Hungary).—Timkó, E.
Komját (Hungary).—Horusitzky, H.
Komorau (Bohemia).—Jahn, J. J., 3; Liebus, A.
Komuto shell-bed, Trinidad.—Guppy, R. J. L., 4.
Königsgnad (Hungary).—Engelhardt, H.
Kootenay (B.C.).—Macbride, R.
Korea (E. Asia).—Pervinquière, L.
Koskullskulle (Norrbotten).—Hecker, —.
Kosva R. (Urals).—Duparc, L.
Kotterbach (Hungary).—Zimányi, K.
Kotzebue Sound (Alaska).—Mendenhall, W. C.
Krambergeria.—Simionescŭ, J., 2.
Krapina (Croatia).—Gorjanovič-Kramberger, D., 2.
Kremsmünster (Lower Austria).—Schwab, P. F.
Krivaya Mouzga (Donetz Basin).—Sokolov, N. A.
Krivoï Rog (Kherson).—Faas, A.; Tapesenko, V.
Križevci (Croatia).—Gorjanović-Kramberger, D.
Kroglje (Istria).—Moser, L. K.
Kromdraai (Transvaal).—Dœrffel, D., 2.
—— conglomerates, Transvaal—Sawyer, A. R., 2.
Kroutikha (Tomsk Gov.).—Tanfelev, G.
Krugersdorp (Transvaal).—Sawyer, A. R., 3.
Krugite.—Geiger, A.
Krühel (Galicia).—Wójcik, K.
Krynka R. (Taganrog Gov.).—Morozevich, I., 2.
Krzeszowice (Galicia).—Renier, A., 3.
Kunzite.—Baskerville, C.; Davis, R. O. E.; Kœchlin, R., 2.
Kurhesse (Germany).—Kayser, E.
Kursk Gov. (Russia).—Armashevski, P.
Kurtodon.—Osborn, H. F., 5.
Kyanite.—Dorlodot, L. de, 2.

Labagh quarry (Bangalore).—Wetherell, E. W., 3.
Lábatlan (Hungary).—Lœrenthey, E., 3.
Labrador (Canada).—Low, A. P
Labradorite-rocks, Norway.—Kolderup, C. F.
Lacave (Lot).—Viré, A.
Laccolites, Hungary.—Koch, A., 3.
Lacogyra.—Perner, J.
Lagenostoma.—Oliver, F. W., 2.
Lagoon-deposits.—Monckton, H. W., 6.
Laibach (Carniola).—Kossmat, F.
Lake-basins, Switzerland.—Preller, C. S. Du R.
Lake-District, English.—Dickson, E., 2; Harker, A.; Lewis, F. J.; Walker, E. E.
Lakes, American Great.—Chalmers, R.
——, Engadine.—Delebecque, A.
——, Grimsel.—Delebecque, A., 2.
——, Lombardy.—Hess, H.
——, New Zealand.—Lucas, K.
——, Prussia.—Braun, G.; Haldfass, W.
——, St.-Gothard Massif.—Delebecque, A., 2.
——, Småland.—Gustafsson, J. P.
——. *See also* Lochs.
Lamellibranchiata, Cambrian.—Delgado, J. F. N., 2.
——, Carboniferous.—Etheridge, R., *fil.*, 3; Girty, G. H., 1, 2, & 4; Hind, W., 2.

Lamellibranchiata, Cretaceous.—Airaghi, C.; Dacqué, E.; Etheridge, R., *fil.*; Ihering, H. von; Pálfy, M. von; Pâquier, V.; Whitfield, R. P.
——, Devonian.—Clarke, J. M., 12; Drevermann, F., 2.
——, Jurassic.—Bœhm, G.; Borisyak, A.; Cossmann, M., 3; Ilovaïski, D.; Loriol, P. de; Madsen, V.; Merciai, G.; Remeš, M.; Toula, F.; Yokoyama, M.
——, Permo-Carboniferous.—Koken, E.
——, Quaternary.—Jensen, A. S., 1 & 2; Kennard, A. S., 3; Marr, J. E., 2.
——, Rhætic.—Reynolds, S. H.
——, Silurian.—Clarke, J. M.; Ruedemann, R.
——, Tertiary.—Andrussov, N.; Archangel, A. C.; Cossmann, M., 4; Dall, W. H.; Dollfus, G. F., 5 & 6; Dreger, J.; Esch, E. von; Laskarev, V.; Leriche, M., 4; Mayer-Eymar, C.; Michaelovski, G. P.; Newton, R. B., 4; Oppenheim, B.; Ravn, J. P. J., 2; Solger, F.; Vinassa de Regny, P. E.
——, Triassic.—Broili, F., 3; Kittl, E.; Linstow, O. von, 2 & 3; Philipp, H.; Reis, O. M.; Tommasi, A., 1 & 2.
——. *See also* Rudistæ, &c.
Laminarites.—Fugger, E.
Lamprophyre, British Columbia.—Barber, W. B.
——, Taganrog Gov.—Morozevich, I., 2.
Lanarkshire (Scotland).—Dron, R. W., 2.
Lancashire.—Arber, E. A. N.; Bolton, H.; Brodrick, H., 1 & 3; Dickson, E.; Gerrard, J., 1 & 2; Lomas, J., 2 & 4; Reade, T. M.
Land, changes of level.—Bailly, L.; Geikie, Sir Archibald, 3; Guenther, R. T.; Hull, E.; Munro, R, 2; Negris, P.; Parkinson, J.; Salmon, W.; Schmidt, C.: Tuttle, G. W.
——, ——. *See also* Coast-erosion.
Landenian, Nord.—Leriche, M., 7.
Landeshut (Silesia).—Herbing, J.
Landslips, Flanders.—Halet, F., 2.
——, Frank.—Macconnell, R. G.
——, Tyrol.—Ampferer, O., 3.
——, Washington (U.S.A.).—Smith, G. O., 2.
Land-subsidence, Sévran.—Dollfus, G. F.
Languedoc (France).—Bergeron, J., 3; Carez, L.; Mazauric, F.; Roman, F.
Lansing (Kan.).—Parker, C. A.; Winchell, N. H., 6.
Lanzo Valley (Piedmont).—Sacco, F., 2.
Laotira.—Huene, F. von.
Laramie Group, Dakota, &c.—Bureau, E.; Wilder, F. A., 2.
Laterite.—Bruhns, W.; Kaiser, E., 5.
Latimæandra.—Rauff, H., 2.
Latiris.—Esch, E. von.
Latour (Pyrénées-Orientales).—Roussel, J.
Lauder (Berwick).—Norman, F. M.
Lauenen (Berne).—Rœssinger, G., 2.
Launching (Victoria).—Chapman, F., 6.
Lauterberg (Harz).—Ermisch, K.
Lava, Mayor I. (N.Z.).—Wolff, F. von.
——, Java.—Volz, W., 2.
——, Skye.—Harker, A., 2.
Laval (Mayenne).—Michel, L.
Lawsonite.—Schaller, W. T., 2; Zambonini, F., 3.
Laziali Hills (Rome).—Angelis d'Ossat, G. de, 3.
Leaching, sea-water.—Macallum, A. B.
Lead, Arizona.—Ransome, F. L., 3.
——, Arkansas.—Adams, G. I., 2; Purdue, A. H.
——, Austria (Lower).—Sigmund, A.
——, British Columbia.—Macbride, R.
——, Carinthia.—Gobl, W.
——, Durham Co.—Lee, M.
——, Illinois.—Emmons, S. F., 4.
——, Kansas, &c.—Crane, W. R., 2.
——, Kentucky.—Ulrich, E. O., 3.
——, Mexico.—Salazar, L.
——, Missouri.—Crook, A. R.; Smith, W. S. T.
——, New South Wales.—Pittman, E. F.
——, Northampton (W. Austral.).—Maitland, A. G.
——, Saxony.—Beck, R.
——, Sumatra.—Milch, L., 3.
——, Tasmania.—Twelvetrees, W. H., 7–10; Waller, G., 5.
——, Thuringia.—Hess von Wichdorff, H.
——, United States production.—Kirchhoff, C., 2.
——, Wisconsin.—Grant, U. S., 2.
Leadhillite.—Pelloux, A.
Lebanon, Mt. (Syria).—Hay, O. P., 2; Rauff, H., 2.
Lecanocrinus.—Rowley, R. R.
Leda.—Andrussov. N.; Archangel, A. D.; Borisyak, A.; Cossmann, M., 3; Esch, E. von; Wollemann, A., 4.
Lehigh Co. (Pa.).—Peck, F. B., 1 & 2.
Leicestershire.—Davison, C., 4; Rastall, R. H.; Rœchling, H. A.; Watts, W. W., 2.
Leiorhynchus.—Guerich, G.
Leitha-limestone, Vienna Basin.—Abel, O., 2.
Lemurs, Tertiary.—Grandidier, G., 2.
Lena R. (Siberia).—Tolmashev, J. P. Yakovlev, N., 2.
Lenne R. (Westphalia).—Denckmann, A.
Lennonville (W. Austral.).—Gibson, C. G.
Lentisulina.—Checchia-Rispoli, G., 2.
Leny-Grit Group, Scotland.—Cunningham-Craig, E. H.
Leobersdorf (Lower Austria).—Handmann, R., 2.
Leonora (W. Austral.).—Jackson, C. F. V.
Leopardite.—Watson, T. L.
Lepidocyclina.—Prever, P. L., 3.

Lepidodendron. — Arber, E. A. N.; Herrick, C. L.; Renault, B.; Zalesski, M. D.
Lepidodiscus.—Clarke, J. M., 12.
Lepidolite.—Achiardi, G. d', 3; Pratt, J. H., 2.
Lepidophyllum.—Pellati, N.
Lepidostrobus.—Zalesski, M. D.
Leptobolus.—Ruedemann, R.
Leptocœlia.—Reed, F. R. C.
Leptosomus.—Hay, O. P.
Leptotrachelus.—Hay, O. P., 1 & 3.
Leptotragulus.—Matthew, W. D.
Lepus.—Major, C. I. F.
Lesley, J. P. *See Obit.*, Geikie, Sir Archibald, 4.
Lessuerella.—Perner, J.
Leutenberg (Thuringia). — Hess von Wichdorff, H.
Leucite, Wyoming.—Kemp, J. F., 4.
Liapine District (Tobolsk Gov.).—Ilovaïski, D., 2.
Lias, Alaska.—Emerson, B. K.
——, Albania.—Renz, C., 3.
——, Bosnia.—Beck, H.
——, Hanover.—Boyer, W.
——, Moravia.—Rzehak, A., 3 & 4; Wiesbaur, J.
——, Northants.—Thompson, B., 2 & 3.
——, Piedmont.—Franchi, S.
——, Poitiers.—Cossmann, M., 3.
——, Portugal.—Choffat, P.
——, Tuscany.—Fucini, A.
Libethenite.—Lindgren, W., 7; Melczer, G., 2.
Libyan Desert (Egypt).—Quaas, A.
Licaphrium.—Ameghino, F., 2.
Lichnaya (Volga).—Sokolov, N. A.
Liége (Belgium).—Fourmarier, F., 2 & 4; Lespineux, G., 2; Lohest, M., 2, 4 & 5; Questienne, P., 1-3; Renier, A., 1 & 2; Simoëns, G., 2; Stainier, X., 3 & 4.
Life on the earth, advent of.—Winchell, N. H., 2.
Light, crystalline surfaces and refracted. —Osthoff, A.
——. *See also* Crystals, &c.
Lignite, Peru.—Ugarteche, M. de.
——, Turkestan. — Bronyaikov, M.; Weber, V.
——, Wonwron.—Kitson, A. E.
Liguria (Italy).—Issel, A.; Pellati, N.; Rovereto, G., 2 & 3; Sacco, F.
Lille (Nord).—Ladrière, J., 2.
Lilliput Bridge (Gloucester).—Reynolds, S. H.
Lima.—Broili, F., 3; Cossmann, M., 3 & 4; Dreger, J.; Merciai, G.; Oppenheim, P.; Remeš, M.; Tommasi, A., 2; Woods, H., 2.
Lima (Peru).—Steinmann, G., 2.
Limestone, Batjan.—Martin, K.
——, California.—Diller, J. S., 3.
——, Jura Tertiary freshwater. — Schmidt, C., 2.
Limestone, Kesztölcz.—Kalecsinszky, A. von.
——, metamorphism of.—Lindemann, B.
——, New York State.—Ries, H., 4.
——, Pennsylvanian Silurian.—Peck, F. B.
——, quartz in.—Fournier, G., 2.
——, Queensland.—Ball, L. C., 6.
——, Salina vermicular.—Kraus, E. H.
——, Salzkammergut.—Fugger, E.
——, silicification of crystalline. — Coomáraswámy, A. K.
——, Touraine freshwater.—Dollfus, G. F., 3.
—— valleys, Namur.—Lohest, M., 6.
——, water in.—Van den Broeck, E.
——, Westphalian Devonian. — Denckmann, A., 2.
——. *See also* Carboniferous, Lithographic, &c.
Limipecten.—Girty, G. H., 4.
Limnæa.—Roman, F.
Limnite.—Dawkins, W. B., 2.
Limonite, Tuscany.—Ristori, G.
Limopsis.—Cossmann, M., 4; Oppenheim, P.
Linarite.—Pelloux, A.
Lincoln Co. (S. Dak.).—Bendrat, T. A.
Lincolnshire.—Burnet, A.; Preston, H. Stather, J. W., 1 & 2.
Lingula.—Reed, F. R. C.
Lingulella.—Delgado, J. F. N., 2.
Lingulops.—Clarke, J. M.
Linthia.—Lambert, J.; Newton, R. B., 3; Tokunaga, S.
Lioclema.—Ulrich, E. O.
Liopteria.—Clarke, J. M., 2.
Liospira.—Clarke, J. M., 12; Collie, G. L.
Liparite, Major I.—Wolff, F. von.
Lipezk (Tambov Gov.).—Zemyatčenski, P.
Lirodiscus.—Dall, W. H.
Lischanna Massif (Grisons).—Schiller, W.
Lithapium.—Squinabol, S., 3.
Lithiotis.—Reis, O. M.
Lithiotis-Beds, Herzegovina. — Katzer, F., 3.
Lithocampe.—Squinabol, S., 3.
Lithodomus.—Oppenheim, P.
Lithographic Stone, Iowa.—Calvin, S., 4; Hœn, A. B.
Lithostrobus.—Squinabol, S., 3.
Lithothamnium. — Vinassa de Regny, P. E., 3.
Littorina.—Wollemann, A., 4.
Lituites.—Kindle, E. M., 2.
Livingston (Mont.).—Iddings, J. P., 2.
Llano (Tex.).—Iddings, J. P., 3.
Llanvirn Beds, Caernarvon.—Fearnsides, W. G., 2.
Llyn Padarn (Wales).—Elsden, J. V.
Loa, Mauna (Hawaii).—Hitchcock, C. H., 2; Wood, E.
Loch-Lomond district, Scotland.—Cunningham-Craig, E. H.

Lochowitz (Bohemia).—Liebus, A.
Lochs, Scottish freshwater.—Johnson, T. N.; Murray, Sir John, 1–5.
Lœss, Austrian.—Rutot, A., 3.
——, Brunswick.—Koch, V. von; Nehring, A.
——, Hungary.—Handmann, R.
——, Indiana.—Fuller, M. L., 4.
——, Missouri.—Owen, L. A.; Wright, G. F.
——, Vienna Basin.—Troll, O. von.
——. *See also* Quaternary.
Loir Valley (France).—Welsch, J.
Loire Basin (France).—Dollfus, G. F., 6.
Lomatia.—Deane, H.
Lombardy (Italy).—Cacciamali, G. B., 2; Hess, H.; Pozzi, Z.; Repossi, E.; Taramelli, T., 1 & 2; Termier, P., 5 & 7; Tommasi, A.
Lomme R. (Namur).—Deladrier, É., 2.
Lonchoconus.—Ameghino, F.
London Basin.—Cameron, A. C. G.; I'Anson, J. C.; Pocock, T. I.
——, water-supply.—I'Anson, J. C.
Long I. (N.Y.).—Veatch, A. C.; Woodward, J. B.
Longcliffe (Derbyshire),—Arnold-Bemrose, H. H., 3.
Lophogododon & *Lopholambda*.—Ameghino, F., 2.
Lophophyllum.—Yakovlev, A., 1 & 4.
Lorandite.—Jannasch, P.; Loczka, J.
Loriolella.—Fucini, A., 2.
Lorraine.—Laur, F.; Van Werveke, L.
Lot (France).—Viré, A., 1 & 2.
Louisiana (U.S.A.).—Harris, G. D.; Hayes, C. W., 4 & 9.
—— Mining Exhibition.—Storrs, A. H.
Loxoconcha.—Chapman, F.
Loxonema.—Picard, E.
Lozère (France).—Guédras, M.
Lübeck (Germany).—Range, P.
Lucerne glacier, post-Pliocene.—Hull, E., 2.
Lucette, La (Mayenne).—Michel, L.
Lucina.—Archangel, A. D.; Dall, W. H.; Esch, E. von; Laskarev, V.; Oppenheim, P.
Ludlow (Salop).—Arber, E. A., 5; Blake, Rev. J. F., 2; Buckman, S. S., 5; Woodward, A. S., 4.
Ludlow Formation, bone-bed.—Hinde, G. J., 3.
—— ——, graptolites.—Wood, E. M. R.
—— fossils in Cornish Silurian.—Green, U.
Lugano, Lake (Lepontine Alps).—Bistram, A. von.
Lüneburg (Hanover).—Linstow, O. von, 2.
Lunulites.—Mapleston, C. M.
Lunz Beds, Lower Austria.—Kittl, E., 2.
Luossavaara (Norrbotten).—Hecker, —.
Lussan (Gard).—Mazauric, F.
Lutetian, Senegambia.—Meunier, S., 1 & 2.
Lutetian. *See also* Eocene & Tertiary.
Lutraria.—Dollfus, G. F., 5.
Luxembourg (Belgian), extension of Secondary rocks in.—Greindl, Baron.
——. *See also* Campine, &c.
Luxemburg, Duchy of.—Pearse, J. W.
Luz (Hautes-Pyrénées).—Carez, L., 1 & 3.
Lychnocanium.—Squinabol, S., 3.
Lycopodites.—Potonié, H., 2.
Lyell, Mount (Tasmania).—Gregory, J. W., 4.
Lyginodendron.—Berry, E. W., 2; Oliver, F. W.
Lyonsia.—Dall, W. H.
Lystrosaurus.—Broom, R., 2.
Lytoceratidæ.—Buckman, S. S.
Lytoloma.—Wieland, G. R., 2.

Machairodus.—Schlosser, M., 2.
McMahon, C. A. *See Obit.*, Bonney, T. G., 3; Holland, T. H., 3; Woodward, H., 6; Woodward, H. B., 5.
Macoma.—Dall, W. H.
Macrauchenia.—Ameghino, F.
Macrocallista.—Dall, W. H.
Macrocephalites.—Madsen, V.
Macrocypris.—Chapman, F., 5.
Macrodon.—Broili, F., 3; Ilovaïski, D.; Tommasi, A.
Macronotella.—Clarke, J. M., 12.
Macrophthalmus.—Man, J. G. de.
Mactra.—Dollfus, G. F., 6; Esch, E. von; Laskarev, V.; Newton, R. B., 3.
Madagascar.—Boule, M., 5; Lacroix, A., 7; Lemoine, G.; Lemoine, P.; Tornquist, A.
Maddalene springs (Venetia).—Taramelli, T., 3.
Madeira (Atlantic).—Gagel, C., 3.
Madonna di Rogoredo (Lombardy).—Taramelli, T.
Madras (India).—Rau, H. N.
Madrid (Spain).—Puerta, G. de la.
Maffucci, A. *See Obit.*, Canavari, M.
Magaliesberg (Transvaal).—Hall, A. L., 1 & 2.
Magellania.—Ihering, H. von, 2.
Maggiore, Lago (N. Italy).—Kæch, M.
Magilus.—Tornquist, A.
Magmas, rock-.—Harker, A., 2; Lane, A. C., 4; Vogt, J. H. L.
Magnesite, distribution.—Brough, B. H.
——, Elba.—Achiardi, G. d'.
——, Mysore.—Primrose, A.
Magnet, Mount (W. Austral.).—Gibson, C. G.
Magnetic iron-ore, origin of.—Klockmann, F., 3.
—— stability, igneous rock.—David, P.
Magnetism, crystals &.—Baviak, B.
——, geology and terrestrial.—Creak, E.
Magnetite, Brazil.—Hussak, E.
—— crystals.—Zambonini, F., 4.
—— deposits, contact-metamorphism &.—Klockmann, F.
——, New Jersey.—Spencer, A. C., 5.
——, Styria.—Redlich, K. A.

Magnetite, surveying.—Haanel, E.
——, Urals.—Morozevich, I., 3.
——. *See also* Iron, Magnetic, &c.
Magnitnaya Gora (Ural Mts.).—Morozevich, I., 3.
Maine-et-Loire (France).—Bigot, A.
Maitai Series, New Zealand.—Park, J., 4.
Majorca (Balearic Is.).—Major, C. I. F., 2; Martel, E. A., 4.
Maldive Is. (Indian Ocean).—Agassiz, A.
Malenco Valley (Lombardy). — Brugnatelli, L., 1 & 2.
Malines (Belgium).—Halet, F.
Malletia.—Etheridge, R., *fil.*
Malmani Goldfield (Transvaal).—Sawyer, A. R., 4.
Malnitz-Beds, Choteboř.—Petrascheck, W., 4.
Mamanite.—Van't Hoff, J. H., 6.
Mammalia, British Museum fossil.—Woodward, A. S., 8.
——, Cretaceous.—Ameghino, F., 1 & 2.
——, dentition of. — Ameghino, F.; Lydekker, R., 3; Osborn, H. F., 5.
—— distribution of, Africa &.—Stromer, E. von, 2.
——, evolution of.—Bensley, B. A.; Lydekker, R.; Woodward, H., 7.
——, Quaternary.—Arnold-Bemrose, H. H., 3; Blasius, W., 2; Bortolotti, C.; Brown, B., 2; Holland, T. H., 4; Kaska, J.; Major, C. I. F.; Mariani, M.; Merriam, J. C.; Nehring, A., 2; Osborn, H. F., 2; Praeger, R. L., 4; Schrœder, H.; Wagner, G.
——, Tertiary.—Ameghino, F., 1 & 2; Andrews, C. W., 1, 2, & 4; Brown, B.; Fraas, E.; Gidley, J. W., 1 & 2; Hœrnes, R.; Major, C. I. F., 2; Matthew, W. D., 1 & 2; Merriam, J. C.; Newton, R. B., 3; Pavlov, M., 1 & 2; Schlosser, M., 1–3 & 5; Simionescŭ, J.; Simionescŭ, J. T.; Stehlin, H.; Wortman, J. L.
——. *See also* Man, Cetacea, &c.
Mammoth, Siberia. — Howorth, Sir Henry H.
Mammoth Cave (Ky.).—Couppey de la Forest, M. le, 2.
Man, American glacial.—Winchell, N. H., 6.
——, antiquity of, S. African.—Johnson, J. P., 6.
——, ——, Victoria.—Gregory, J. W., 3.
——, Dachsenbüel Cave.—Kollmann, J.; Nuesch, J.
——, Kesslerloch Cave.—Nuesch, J., 2.
——, Neand-Valley Cave.—Rauff, H.
——, Quaternary.—Boule, M., 3; Davies, H. N.; Edwards, W. H.; Gorjanović-Kramberger D., 3; Gregory, J. W., 3; Hamy, E. T.; Kœnen, C., 2; Krause, G.; Munro, R.; Parker, C. A.; Rauff, H.; Winchell, N. H., 6.
——, Tertiary.—Schlosser, M., 2.
Man, I. of.—Lomas, J., 6.
Manchester (Lancs).—Arber, E. A. N.; Hobson, B.; Hollingworth, G. H.
Manchuria (E. Asia).—Heurteau, C. E.; Pervinquière, L.
Manganese, Cuba.—Hamilton, S. H.; Spencer, A. C.
——, Essex Boulder-Clay.—Thresh, M.
——, Georgia.—Hayes, C. W., 2.
——, Hesse.—Chelius C., 2; Salomon, W., 2 & 3.
——, India.—Fermor, L. L.
——, Istria.—Moser, L. K.
——, Mysore.—Sambasiva Iyer, V. S., 2.
——, New Jersey.—Wolff, J. E.
——, Panama.—Williams, E. G.
——, Queensland.—Ball, L. C., 4 & 6.
——, Thames - Valley Drift.—Johnson, J. P., 3.
——, United States production of.—Birkinbine, J., 2.
Mangoli I. (D. E. I.).—Bœhm, G.
Manhattan I. (N.Y.).—Julien, A. A.
——. *See also* New York City.
Manicaland (E. Africa).—Sawyer, A. R.
Manich R. (S. Russia).—Bogachev, V.
Manila (Philippine Is.).—Stainier, X., 5.
Manitou Cave (Colo.).—Couppey de la Forest, M. le, 2.
Manjak, Barbados.—Emtage, R. H.
——, Trinidad.—Guppy, R. J. L., 3; Henry, T. A., 5.
Maps, Belgian tectonic.—Deladrier, E.; Prinz, W., 2.
——, geological.—Watts, W. W.

MAPS.

AFRICA (Equatorial).
Lake Tanganyika, $1\frac{1}{4}$ inches = 69 miles. 1904.—Hudleston, W. H.
AFRICA (North).
Algeria. Orléansville, $\frac{1}{175,000}$. 1903.—Sarthou, J., 2.
——. Service géologique de l'Algérie. Carte géologique. $\frac{1}{50,000}$. Sheets 8 & 23. Dellys, Tizi-Ouzou.—1904.—Ficheur, E., 2.
Sheet 62. Marengo. 1904.—Ficheur, E., 2.
Egypt. Baharia Oasis. $\frac{1}{250,000}$. 1903.—Ball, J., &c.
AFRICA (East).
German East Africa. Usambara. Amani. $\frac{1}{10,000}$. 1904.—Kœrt, W.
Portuguese Manica goldfield. 1 inch = $2\frac{3}{5}$ miles. 1903.—Sawyer, A. R.
AFRICA (South). 1 inch = 200 miles. 1904.—Skinner, B.
Cape Colony. Gouritz River-System. 1 inch = 25 miles. 1903.—Rogers, A. W.
——. Namaqualand. 1 inch = about 5 miles. 1904.—Kuntz, J., 4.
——. Piquetberg. Verloren Valley. 1 inch = 2 miles. 1904.—Rogers, A. W.

AFRICA (South).

Cape Colony. Sutherland, Calvinia & Ceres. 1 inch = about 6 miles. 1904.—Rogers, A. W.

—— Willowmore & Uniondale. 1 inch=4 miles. 1904.—Schwarz, E. H. L.

Natal. Insuzi Goldfield. 1 inch=100 chains. 1904.—Gray, C. J.

Transvaal (S.). 1 inch=4 miles. 1903.—Hatch, F. H.

——. Balmoral (*No scale stated*). 1904.—Dœrffel, D.

——. ——. 1 inch=1¼ miles. 1904.—Mellor, E. T., 2.

——. Diamond-fields. $\frac{1}{94,720}$. 1904.—Hall, A. L., 3.

——. Elandsfontein. 2 inches=about 1 mile. 1904.—Kynaston, H., &c.

——. Johannesburg. 1⅝ inches=1 mile. 1904.—Hatch, F. H., 6.

——. Marico District. 1 inch=10 miles. 1904.—Hatch, F. H., 4.

——. Pretoria-Balmoral glacial conglomerate. 1904.—Mellor, E. T., 2.

——. Pretoria to Limpopo R. 1 inch =about 13 miles. 1904.—Holmes, G. G.

——. Pretoria & Middelburg Districts. 1 inch=about 2½ miles. 1904.—Kynaston, H., 1 & 2.

——. Rustenburg & Waterberg Districts. 1 inch=4 miles. 1904.—Jorissen, E.

——. Ventersdorp District. (*No scale stated.*) 1904.—Hatch, F. H., 3.

——. Vredefort District. 1 inch=5 miles. 1904.—Molengraaff, G. A. F., 2.

——. Waterberg Sandstone at Wilge River, 1 inch=130 feet; & Balmoral Station, 1 inch=65 feet. 1904.—Mellor, E. T., 3.

——. Witwatersrand. 1 inch=2½ miles. 1904.—Hoffmann, J. I.

——. ——. Extreme Eastern Extension of Rand Witwatersrand Beds. 1 inch=1⅝ miles. 1904.—Hatch, F. H., 5.

AFRICA (S.W.).

Great Namaqualand. ¾ inch=20 miles. 1904.—Voit, F. W., 2.

AMERICA (Central).

Mexico, Guatemala, & San Salvador. Active volcanoes. 1902. $\frac{1}{4,500,000}$. 1904. Sapper, K., 2.

——. Michoacán. Angangueo. $\frac{1}{25,000}$. 1904.—Ordoñez, E., 2.

AMERICA (North).

Alaska. 1 inch=20 miles. 1904. Schrader, F. C.

——. Fort Hamlin to Kotzebue Sound (*various*). 1902.—Mendenhall, W. C.

——. Yukon (*various*). 1903.—Collier, A. J., 2.

Great Lakes. 1 inch=about 60 miles. 1904.—Willmott, A. B.

AMERICA (North).

Ontario (Lake). Iroquois Beach. 1 inch=20 miles. 1904.—Coleman, A. P.

——, N.E. 1 inch=12 miles. 1904.—Wilson, A. W. G., 2.

Rocky Mts. 1½ inches=about 70 miles. 1904.—Suess, E., 3.

Superior (Lake) Iron-districts. 1 inch=about 75 miles. 1904.—Macco, A.

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711. Atlin Goldfield (B.C.). 1 inch =6 miles. 1901.—Dawson, G. M.

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——. ——. Nova Scotia. 1 inch=1 mile.—Bell, R. (Acting Director), 2.

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44. 1902. Ditto.
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46. 1903. Ditto.
47. 1902. Ditto.
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56. 1903. Ditto.
57. 1902. By H. Fletcher.
58. 1902. Ditto.

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——. ——. ——. 1 inch=7 miles. 1904.—Stonier, G. A.

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- 97. Parker (S. Dak.). 1903. By J. E. Todd.
- 98. Tishomingo (Ind. Terr.). 1903. By J. A. Taff & S. H. Ball.
- 99. Mitchell (S. Dak). 1903. By J. E. Todd.
- 100. Alexandria (S. Dak.). 1903. By J. E. Todd & C. M. Hall.
- 101. San Luis (Cal.). 1904. By H. W. Fairbanks.
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- 103. Nampa (Ido.). 1904. By W. Lindgren & N. F. Drake.
- 104. Silver City (Ido.). 1904. By W. Lindgren, N. F. Drake, & F. C. Schrader.
- 105. Patoka (Ind.). 1904. By M. L. Fuller & F. G. Clapp.
- 106. Mount Stuart (Wash.). 1904. By I. C. Russell, G. O. Smith, G. C. Curtis, & W. C. Mendenhall.

Alabama. 1 inch=40 miles. 1904. Smith, E. A., 1 & 2.

Arizona. Bisbee. 1 inch=1 mile & 1 inch=1000 feet. 1904.—Ransome, F. L.

——. Globe District. 1 inch=1 mile & $5\frac{1}{4}$ inches=1 mile. 1903.—Ransome, F. L.

——. Tombstone. 1 inch=1 mile. 1903.—Church, J. A.

Arkansas. Yellville. 1 inch = 2 miles; & Zinc and Lead-District. 1 inch=5 miles. 1904.—Purdue, A. H.

California. Santa Cruz Mts. $\frac{3}{4}$ inch=2 miles. 1904.—Hæhl, H. L., &c.

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Colorado. Ouray Co. $\frac{3}{4}$ inch=1 mile. 1903.—Purington, C. W., &c.

Connecticut & Massachusetts. Harford & Greenfield Districts. $\frac{3}{8}$ inch=5 miles. 1904.—Rice, W. N., 2.

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Dakota. Black Hills. 1 inch=4 miles. 1904.—Irving, J. D., &c.

—— (S.). South-Eastern, 1 inch=2 miles; & Mitchell, 1 inch=4 miles. 1904.—Todd, J. E., 3.

——, Lincoln Co. 1 inch=6 miles. 1904.—Bendrat, T. A.

Eastern States. Piedmont Plateau. 1 inch=about 23 miles. 1904.—Matthews, E. B.

Indiana. 1 inch=4 miles. 1904.—Hopkins, T. C.

——. Oil-Region. 1 inch=2 miles. 1904.—Blatchley, W. S.

——. Ripley Co. 1 inch=7 miles. 1904.—Fœrste, A. F., 2.

——, Ohio, & Kentucky. 1 inch=40 miles. 1904.—Fœrste, A. F., 2.

Iowa. Fremont & Mills Counties (Drift), *one of each.* 1 inch= 2 miles. 1903.—Udden, J. A.

——. Hancock, Kossuth, & Winnebago Counties (Drift), *one of each.* 1 inch=2 miles. 1903.—Macbride, T. H.

——. Howard Co. (Solid.) 1 inch =2 miles. 1903.—Calvin, S., 2.

——. Mitchell Co. (Solid.) 1 inch =2 miles. 1903.—Calvin, S., 3.

——. Monroe Co. (Solid.) 1 inch =2 miles. 1903.—Beyer, S. W., 2.

——. Tama Co. (Drift.) 1 inch= 2 miles. 1903.—Savage, T. E.

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——, Ohio & Kentucky. 1 inch = 40 miles. 1904.—Fœrste, A. F., 2.

Kansas. Upper Carboniferous Limestone Outcrops (*various*). 1903.—Adams, G. I., 4.

Kentucky, Ohio, Pennsylvania, & West Virginia pre-Glacial valleys. (*various.*) 1903.—Tight, W. G.

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Louisiana-Texas, 1 inch=25 miles; & Petroleum-map, 1 inch=20 miles. 1903.—Hayes, C. W., 9.

Massachusetts. Charles Glacial Lake (*various*). 1904.—Clapp, F. G.

——. Neponset Glacial Lake. 1 inch =1 mile. 1904.—Fuller, M. L., 2.

Michigan. Marquette District. 1 inch = about 2 miles. 1904.—Macco, A.

——. Menominee iron-bearing district (*various*). 1904.—Bayley, W. S.

Missouri, &c., glaciation (*various*). 1904.—Wright, G. F.

Nebraska. 1 inch = 40 miles, & 1 inch = 5 miles. 1903.—Darton, N. H.

Nevada. Tonopah. 2 inches=1 mile. 1904.—Lakes, A., 4.

——. ——. $3\frac{1}{3}$ inches = 1 mile. 1903.—Spurr, J. E., 2; *also* Emmons, S. F., 4.

—— & California (*various*). 1903.—Spurr, J. E.

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New Hampshire. $\frac{3}{4}$ inch = 1 mile. 1904.—Perry, J. H.

New Jersey. Glacial-Drift distribution. 1 inch = 5 miles, &c. 1904.—Salisbury, R. D., &c.

—— & part of New York. 1 inch = 15 miles. 1904.—Salisbury, R. D., &c.

New Mexico. Jemez-Albuquerque District. $1\frac{1}{4}$ inches=6 miles. 1903.—Reagan, A. B.

——. San Pedro District. 1 inch = 6 miles, & 1 inch = 600 feet. 1903.—Yung, M. B.

New York. Clinton & Essex Cos. 1 inch=1 mile. 1902.—Van Ingen, G.

——. Gypsum-districts (*various*). 1904.—Adams, G. I., 5.

——. Long Island. 4 inches = 69 miles. 1903.—Veatch, A. C.

——. Manhattan I., New York City. $1\frac{1}{2}$ inches= about 2 miles. 1903.—Julien, A. A.

——. Ten-Mile Creek gorge. 1 inch = 600 feet. 1904.—Matson, G. C.

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Ohio Geological Survey. Petroleum districts (*various*). 1903.—Bownocker, J. A.

——. *See also* Kentucky.

Pennsylvania. *See* Kentucky.

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Utah. Toqueville District. $\frac{3}{4}$ inch = 1 mile. 1904.—Huntington, E., &c.

Vermont. Ascutney Mt. $1\frac{1}{4}$ inches =1 mile. 1903.—Daly, R. A.

Virginia. Blue - Ridge Unakite-district. 1 inch = 2 miles. 1904. Phalen, W. C., 2.

—— (W.). *See* Kentucky.

Washington (*various*). 1903. — Smith, G. O., 2.

Wisconsin. Baraboo iron-district. 1 inch=1 mile. 1904.—Weidman, S., 2.

——, north central (*various*). 1903.—Weidman, S.

—— & Iowa. 1 inch=4 miles. 1903.—Grant, U. S., 2.

Wyoming. Encampment District. 1 inch = about $1\frac{1}{2}$ miles. 1904.—Spencer, A. C., 6.

——. Rambler District. 1 inch = about 2 miles. 1904.—Kemp, J. F., 3.

——. Sweetwater Co., leucite-hills. 1 inch = $4\frac{1}{2}$ miles. 1903.—Kemp, J. F., 4.

AMERICA (Central).

Mexico. La Paz. $\frac{1}{50,000}$. 1904.—Angermann, E.

——. Pachuca. 1 inch=2,500 feet. 1904.—Halse, E.

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Mexico. Sonora Palæozoic. $\frac{1}{1,000,000}$. 1904.—Angermann, E., 2.

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Argentina. Buenos Aires. $\frac{1}{3,500,000}$. 1904.—Hauthal, R.

Brazil. Minas Geraes. Ouro Preto District. 1 inch=15 miles. 1903.—Scott, H. K.

——. Pará. Lower Amazon District. $\frac{1}{4,400,000}$. 1903.—Katzer, F.

Patagonia. St. George's Gulf. $\frac{1}{6,000,000}$.—Tournouër, A.

Peru. Huancavelica quicksilver-district. $\frac{1}{200,000}$. 1904.—Umlauff, A. F.

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Altai. Sheets Krutikha & Kabania. 1 inch = 10 versts. 1904.—Tanfelev, G.

Caspian Sea, &c., post-Pliocene. 1 inch = 315·65 miles, & 1 inch = 237 miles. 1904. — Kropotkin, Prince P., 2.

Ceylon. Balangoda, Denagama. 5 inches = $1\frac{1}{2}$ miles. 1904.—Coomáraswámy, A. K.

——. Mineral-occurrence maps. 1904.—Coomáraswámy, A. K., 7.

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——. ——, Upper. 1 inch=16 miles. 1904.—Maclaren, J. M., 3.

——. Baluchistan. 1 inch=16 miles. 1904.—Vredenburg, E., 4.

——. Bengal Pres. Nagpur, Chota District. 1 inch=16 miles. 1904.—Maclaren, J. M., 2.

——. ——. Jherria coalfield. 1 inch =1 mile. 1904.—Stonier, G. A., 2.

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Zone 6, Col. VIII. Nachi. 1904. —Otsuki, Y.

Zone 6, Col. IX. Kinomoto. 1904. —Ogawa, T.

Zone 7, Col. III. Tsunoshima. 1904. Kochibe, T., 2.

Zone 17, Col. XVI. Kamaishi. 1904. —Kanehara, N.

——. Hondo. Mino-Owari earthquakes. 1 inch=13 miles. 1904.—Kusakabe, S.

Korea. $\frac{1}{4,000,000}$. 1904.—Pervinquière, L.

Persia (N.). Karadagh. 1 inch = 6 miles. 1904.—Stahl, A. F.

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——. Kamchatka. $\frac{1}{2,000,000}$. 1904.—Bogdanovich, K.

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——. Tiflis. Sighenakh. 1 inch = 6 versts. 1903.—Riabinin, A.

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—— (—). Edjudina. 1 inch=$\frac{1}{2}$ mile. 1903.—Maitland, A. G., 2.

—— (—). Herberton. 1 inch = 3 miles. 1904.—Cameron, W. E., 2.

—— (—). Leonora. 1 inch = 30 chains. 1904.—Jackson, C. F. V.

—— (—). Malcolm Mt. 1 inch = $\frac{1}{2}$ mile. 1903.—Maitland, A. G., 2.

—— (—). Mulline & Mulwarrie, both 1 inch = $\frac{1}{2}$ mile. 1904.—Gibson, C. G., 2.

—— (—). Murchison goldfield, Boogardie & Mt. Magnet. 6 inches = 1 mile. 1903.—Gibson, C. G.

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New South Wales. Sydney District, recent alluvium. 1 inch= about 2 miles. 1904.—Andrews, E. C.

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Queensland. Boyne R. 1 inch= 1 mile; Calliope R. 1 inch=1 mile; Duke Is. 1 inch = 15 chains; & Gassford District. 1 inch = 20 chains. 1904.—Ball, L. C., 6.

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——. Glass-House Mts. District. 1 inch=3 miles. 1904.—Jensen, H.I.

——. Moonmera. 1 inch=11 chains. 1904.—Dunstan, B.

——. Pemberton District. 1 inch= 10 chains; Port Curtis. 1 inch= 1 mile; & Targinie District. 1 inch =30 chains. 1904.—Ball, L. C.

Tasmania (N.W.). 1 inch=24 miles. Mount Lyell. 1 inch=$1\frac{1}{2}$ miles. 1904.—Gregory, J. W., 4.

——. Stanley-River tinfield. 1 inch =$\frac{1}{2}$ mile. 1904.—Waller, G. A., 4.

——. Zeehan silver-lead district. 1 inch =12 chains. 1904.—Waller, G. A., 5.

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——. ——. Chewton - Castlemaine goldfield. 1 inch = 20 chains. 1903.—Baragwanath, W., Jun.

——. ——. Chiltern goldfield. 1 inch=40 chains. 1903.—Hunter, S. B., 2.

——. ——. Raywood & Northern Bendigo goldfield (*various*). 1904. —Whitelaw, H. S.

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——. Dandenong. 1904. — Sutherland, I. M.

——. Inverleigh. 1 inch=2 miles. 1904.—Hall, T. S., 2.

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Java. $\frac{1}{4,000,000}$. 1904.—Volz, W., 2.

Molucca Is. Buru. $\frac{1}{500\ 000}$. 1903.—Martin, K., 2.

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——. $\frac{1}{4,000,000}$ & $\frac{1}{1,250,000}$. 1904.—Volz, W.

——. Atjeh Valley. $\frac{1}{200,000}$. 1903.—Jansen, P.

——. Ulu-Rawas District. $\frac{1}{200,000}$. 1904.—Milch, L., 2.

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——. ——. Vienna. $\frac{1}{25,000}$. 1904.—Schaffer, F. X.

——. Bohemia. 1 inch=30 kms. 1903.—Diener, C., 4.

——. ——. Horensko District. $\frac{1}{75,000}$. 1904.—Katzer, F., 5.

——. ——. Komorau. 1 inch = ½ mile. 1904.—Liebus, A.

——. ——. Mittelgebirge. Sheet 4. Aussig. $\frac{1}{25,000}$. 1904.—Hibsch, J. E.

——. ——. Nachod, &c. $\frac{1}{25,000}$. 1903.—Petrascheck, W.

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——. ——. Dobsina District ore-deposits. $\frac{1}{25,000}$. 1903.—Gesell, A.

——. Tyrol. Fernpass. 1 inch=about 2 miles. 1904.—Ampferer, O., 3.

——. ——. Karwendel Mts. $\frac{1}{100,000}$. 1903.—Ampferer, O.

——. ——. Kellerjoch & Schwaz District. $\frac{1}{100,000}$. 1903.—Ohnesorge, T.

——. ——. Monzoni Mt. $\frac{1}{25,000}$. 1903.—Dœlter, C., 3.

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——. Liége. Angleur & Vesdre Valley. $\frac{1}{40,000}$. 1904.—Fourmarier, P., 4.

——. ——. Salm Château District. $\frac{1}{20,000}$. 1904.—Lohest, M., 4.

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——. Namur. Meuse R. valleys. $\frac{1}{20,000}$. 1904.—Lohest, M., 6.

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48. Eppingen. 1903. — Schnarrenberger, C.
120. Donaueschingen. 1904. — Schalch, F.
127. Müllheim. 1903. — Steinmann, G., 5.

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Bavaria. Wemding. 1 inch = 152 metres. 1903.—Knebel, W. von.

—— (Rhenish-). Zweibrücken. $\frac{1}{50,000}$. 1903.—Ammon, L. von.

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——. Mittelgebirge granulite-laccolite. 1 inch = 2½ miles. 1904.—Kæstner, M.

Schleswig-Holstein. Lübeck. 3 inches = about 12 miles. 1904.—Range, P.

Silesia. Militsch. $\frac{1}{120,000}$. 1903.—Berendt, G.

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Weimar. Apolda. $\frac{1}{25,000}$. 1904.—Compter, G.

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——. Cambridgeshire. 1 inch = 4 miles. 1904.—Marr, J. E., 2.

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  ——. Peat-bogs. $\frac{1}{30.000}$. 1904.—Frueh, J., 3.
  ——. Ticino. St. Gotthard. $\frac{5}{8}$ inch =about 4 miles. 1904.—Kœnigsberger, J.
  ——. Thurgau drumlins. $\frac{1}{50,000}$. 1904. —Frueh, J.
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——, Silurian.—Huene, F. von.
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Megalodon.—Tommasi, A.
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Megambonia.—Hind, W., 2.
Megapezia.—Matthew, G. F., 4.
Megistocrinus.—Wood, E., 2.
Meguma Series, Nova Scotia.—Woodman, J. E.
Mehedinite (Rumania).—Martonne, E. de.
Melanopsis.—Kormos, T; Mayer-Eymar, C.
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Melaphyre, Tyrol.—Dœlter, C., 3; Proboscht, H.; Romberg, J., 3.; Went, K.
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—— ——, Rofna Valley.—Rüetschi, G.
—— ——, Rome.—Millosevich, F., 2.
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——, California.—Ward, H. A.
——, Carolina (N.).—Glenn, L. C., 2; Tassin, W.
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——, Finland.—Borgstrœm, L. H.
——, Moravia.—Weiss, E.
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—— (France).—Gosselet, J., 2.
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——, distribution of.—Brough, B. H.
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——, for the study of melting-points.— Dœlter, C., 1 & 2.
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——, Great Britain, &c.—Atkinson, J. B., 1–3; Foster, Sir Clement Le N.
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Minnesota (U.S.A.).—Clements, J. M., 2; Thomas, K., 1 & 2.
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Mira, R. (N.S.).—Gilpin, E., Jun., 2.
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—— River (U.S.A.).—Upham, W., 4.
—— —— -mud.—Reade, T. M., 2.
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Montroydite.—Gaubert, P., 6; Kœchlin, R., 2; Moses, A. J., 2.

Monzie (Perth).—Kerr, W. 2.

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Moorlort (Victoria).—Lindgren, W., 6.

Moose Mt. (Ont.).—Leith, C. K., 2.

Moracchino R. (Venetia).—Taramelli, T., 3.

Moraines, Brandenburg.—Maas, G., 3.

——, New Hampshire.—Upham, W.

——, Piedmont.—Capeder, G.

——, Svealand.—Aminov, G.

——, Thurgau.—Frueh, J.

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Morenci (Ariz.), & morencite.—Lindgren, W., 7.

Mornington (Victoria).—Deane, H.

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Mosbach (Nassau).—Behlen, H.; Reichenau, W. von; Schrœder, H.

Moscow Gov. (Russia).—Ilovaïski, D.

Mosor Mts. (Dalmatia).—Kerner, F.

Mountains, origin of.—Uhlig, V.

Mouscron (Flanders).—Rutot, A., 6.

Mühlhausen (Thuringia).—Kaiser, E., 2.

Mullerornis.—Andrews, C. W., 5.

Mulline (W. Austral.).—Gibson, C. G., 2.

Mullion I. (Cornwall).—Prior, G. T.

Mulwarrie (W. Austral.).—Gibson, C. G., 2.

Münster (Westphalia).—Mueller, G., 2.

Murat (Cantal).—Pagès-Allary, J.

Murchison Goldfield (W. Austral.).—Gibson, C. G.

Murchisonia.—Clarke, J. M.; Guerich, G.; Perner, J.

Murex.—Bédé, P.; Esch, E. von; Laskarev, V.

Muscovite.—Becke, F., 2.

Museum, Albany (S.A.).—Schœnland, S.

——, Basel Natural History.—Sarasin, F., 3.

——, Berlin. University meteorite-collection.—Klein, C., 1 & 4.

Museum, Bristol. Stoddart Collection.—Vaughan, A.

——, British Natural History. *See* Arber, E. A. N., 4; Fletcher, L., 1–4; Lankester, E. R.; Newton, R. B., 2; Seward, A. C., 6; Woodward, A. S., 1; Woodward, B. B.

——, Brussels Art.—Dewalque, G., 4.

——, Elbeuf Natural History.—Coulon, L.

——, Field Columbian, Chicago.—Farrington, O. C.

——, Frankfort-on-Main Natural History Society.—Kinkelin, F., 1 & 3.

——, Hull.—Sheppard, T., 5.

——, Melbourne National.—Chapman, F., 3–5.

——, New York State Natural History, Albany.—Ellis, M.; Clarke, J. M., 4 & 9; Merrill, F. J. H., 2 & 3; Whitlock, H. P.

——, Oxford University.—Healey, M.

——, Paris Natural History.—Boule, M., 4; Stefano, G. di.

——, Peabody Museum, Marsh Collection, Yale.—Hay, O. P., 3; Wortman, J. L.

——, Perugia University.—Bortolotti, C.

—— of Practical Geology, London.—Allen, H. A.; Teall, J. J. H.

——, Sedgwick, Cambridge.—Anon., 21; Reed, F. R. C., 3.

——, South African.—Broom, R., 5.

——, Tübingen University, Geological & Mineralogical Institute.—Koken, E., 2; Sommerfeldt, E., 2.

——, Vienna k.-k. naturh. Hof-Museum.—Brezina, A.

——, Ward-Coonley Collection of Meteorites, Chicago.—Ward, H. A., 3.

——, Washington National.—Merrill, G. P.

Muskingum River (U.S.A.).—Flynn, B. H.

Myalina.—Drevermann, F., 2.

Mylodon.—Cordovez, M.

Myoconcha.—Broili, F., 3; Madsen, V. Tommasi, A.

Myophoria.—Tommasi, A.

Myrtæa.—Dall, W. H.

Mysidioptera.—Broili, F., 3.

Mysore (India).—Grundy, J.; Primrose, A., 1 & 2; Sambasiva-Iyer, V. S., 1 & 2; Slater, H. K.; Smeeth, W. F., 1 & 2; Wetherell, E. W., 1–3.

Mytilus.—Bœhm, G.; Cossmann, M., 3; Ilovaïski, D.; Merciai, G.; Oppenheim, P.

Nachod (Bohemia).—Petrascheck, W.

Nagato (Japan).—Yokoyama, M., 2.

Nagpur (India).—Grundy, J., 4.

Nagy-Kapornak (Hungary).—Handmann, R.

Nagyág-Tal (Hungary).—Posewitz, T.

Naica (Mexico).—Salazar, L.

Najas.—Reid, C., 3.

Namaqualand (Cape Colony).—Kuntz, J., 4.
——, Great (German W. Africa).—Fletcher, L., 2; Voit, F. W.
Namur (Belgium).—Dorlodot, L. de; Gosselet, J., 4; Lohest, M., 6; Malaise, C., 2.
Naninne (Namur).—Dorlodot, L. de.
Nantucket I. (Mass.).—Cushman, J. A., 3.
Naples (Italy).—Sarnelli, P.
——, Bay of.—Guenther, R. T.; Lorenzo, G. de.
Narraburra (N.S.W.).—Liversidge, A.
Nassau (Germany).—Brauns, R.; Kaiser, E., 4; Krahmann, K.; Krecke, F.
Nastapoka Is. (Hudson Bay).—Low, A. P., 2.
Natal (S. Africa).—Dunstan, W. R., 4; Gray, C. J.
Natica.—Archangel, A. D.; Cossmann, M., 2; Esch, E. von; Laskarev, V.; Loriol, P. de.
Naticella.—Picard, E.
Naticonema.—Perner, J.
Nature & transport.—Haug, E., 3 & 5; Suess, E.
Nauplia (Greece).—Cayeux, L.
Nautilus.—Archangel, A. D.; Diener, C.; Hamilton, A.; Ihering, H. von; Loriol, P. de.
Neagh, Lough (Ireland).—Gough, G. C.
Néand-Valley Cave (Belgium).—Kœnen, C., 2; Rauff, H.
Nebraska (U.S.A.).—Darton, N. H.
Nebular theory.—Mistockles, N.
Neckar Valley (Germany).—Glueck, H.
Nelson (N.Z.).—Marshall, P.
Német-Gladna (Hungary).—Schafarzik, F.
Neocomian, Russian Poland.—Michalski, A.
——. *See also* Cretaceous.
Neohipparion.—Gidley, J. W.
Neolobites.—Hyatt, A.
Neoptychites.—Esch, E. von.
Nepheline-rocks, Greenland.—Bœggild, O. B.
—— ——, Mexico.—Finlay, G. I.
—— ——, Ontario.—Adams, F. D.
—— ——, Tahiti.—Lacroix, A., 6.
—— ——, Transvaal.—Molengraaff, G. A. F., 5.
—— ——, Tyrol.—Romberg, J.
Nephelospongia.—Clarke, J. M., 11.
Nephelites.—Deane, H.
Nephrotus.—Scupin, H.
Neposet, glacial lake (Mass.).—Fuller, M. L, 2.
Nerinæa - limestone, Dobrudscha. — Toula, F.
Nerinella.—Choffat, P.
Nerita.—Cossmann, M., 2.
Neritaria.—Picard, E.
Neritina.—Andrussov, N.; Dall, W. H.
Nesodon & *Nesohippus.*—Ameghino, F., 2.
Ness, Loch (Scotland).—Johnson, T.
Netherfield (Sussex).—Oliphant, F. H.
Netherlands.—Calker, F. J. P. van.
Nettuno (Prov. Rome).—Meli, R., 3.
Neuewelt (Basel).—Leuthardt, F.
Neufchâtel-en-Bray (Normandy).—Dubus, A., 2.
Neuropteris.—Arber, E. A. N., 1 & 6; Kidston, R.
——, seeds of.—Grand'Eury. —., 3.
Neustadt (Rh.-Bavaria).—Luczizky, W. von.
Neuville-sur-Meuse (Liége).—Malaise, C., 3.
Nevada (U.S.A.).—Adams, G. I., 5; Emmons, S. F., 4; Lakes, A., 4 & 6; Louderbeck, G. D.; Spurr, J. E., 1 & 2; Weeks, F. B.
Nevada, Sierra (Cal.).—Gilbert, G. K., 2 & 4; Lindgren, W.
Neverita.—Dall, W. H.
New Brunswick (Canada).—Bailey, L. W., 1 & 2; Ganong, W. F.; Kain, S. W.; Matthew, G. F., 1–5; Poole, H. S.
New Caledonia (Pacific).—Glasser, E.
New Hampshire (U.S.A.).—Perry, J. H.; Upham, W.
New Jersey (U.S.A.).—Berry, E. W.; Clark, W. B.; Eyerman, J.; Harshberger, J. W.; Knapp, G. N.; Kuemmel, H. B.; Lane, A. C., 3; Salisbury, R. D.; Spencer, A. C., 5; Wieland, G. R.; Wolff, J. E.
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New South Wales.—Andrews, E. C.; Anon., 23; Atkinson, A. A.; Coghlan, T. A.; Etheridge, R., *fil.*; Herrmann, A.; Pittman, E. F.
New York (U.S.A.).—Adams, G. I., 5; Campbell, M. R.; Clarke, J. M., 3–12; Cumings, E. R.; Dickinson, H. T.; Emmons, S. F., 4; Fairchild, H. Le R., 2; Glenn, L. C.; Kindle, E. M., 1 & 3; Matson, G. C.; Merrill, F. J. H., 1–3; Prosser, C. S.; Ries, H.; Tarr, R. S.; Williams, H. S., 2 & 3.
New York City (U.S.A.).—Julien, A. A.; Tuttle, G. W. *See also* Manhattan I.
New Zealand.—Coghlan, T. A.; Gordon, H. A.; Hamilton, A.; Lucas, K.; Macgowan, J.; Mackay, A.; Marshall, P.; Mulgan, E. K.; Park, J., 1–5; Seelye, F. T.; Speight, R.
—— ——. *See also* Birds, Otago, &c.
Newland diamond-mines (Cape Colony).—Graichen, W.
NEWTON'S (Sir ISAAC) theory of the earth's figure.—Puiseux, M.
Niagara Formation, Indiana.—Kindle, E. M., 2.
Nicaragua (C. Am.).—Sapper, K.
Nice (Alpes-Maritimes).—Depéret, C., 2.
NICHOLSON, Sir CHARLES. *See Obit.*, Geikie, Sir Archibald, 4.

Nickel, Hungary.—Gesell, A.
——, New Caledonia.—Glasser, E.
——, Ontario.—Carter, W. E. H.; Coleman, A. P.; Miller, W. G.; Pratt, J. H., 3.
——, Peru.—Habich, E. A. V. de.
——, Saxony.—Beck, R., 3; Dieseldorff, A.
——, United States, distribution of.—Pratt, J. H., 3.
Nicklesia.—Hyatt, A.
Niger R. (Africa).—Hubert, H.
Nigeria (W. Africa).—Dunstan, W. R., 3 & 5; Elliot, G. S. McD.; Henry, T. A., 6; Newton, R. B., 2.
Nil-Saint-Vincent (Brabant).—Prinz, W.
Nile-River mud.—Reade, T. M., 2.
Nileus.—Wiman, C.
Nipponites.—Yabe, H.
Nizzeti (Catania).—Scalia, S.
Nomenclature, geological, U.S. Geological Survey.—Gilbert, G. K.
Nomismoceras.—Diener, C.
Nord (France).—Barrois, C.; Carpentier, A.; Dollé, L., 2; Ladrière, J., 1 & 2; Leriche, M., 5–7.
Nordeck (Hesse).—Schwantke, A.
Norfolk.—Harmer, F. W.
Normandy (France).—Bigot, A.; Cossmann, M., 4; Douvillé, R.; Dubus, A., 1 & 2; Leprévost, E.
Northampton (W. Austral.).—Maitland, A. G., 2.
—— Co. (Pa.).—Peck, F. B., 1 & 2.
Northamptonshire. — Moore, J. R.; Thompson, B., 2 & 3.
Northumberland.—Lewis, F. J.; Simpson, J. B.; Woolacott, D., 1 & 3.
Norway.—Henriksen, G.; Klockmann, F., 2; Kolderup, C. F.; Monckton, H. W.; Vogt, J. H. L.
Norwood (Surrey). — Hagg, A. J.; Robarts, N. F., 2.
Nothamusium.—Hind, W., 2.
Notidanus.—Chapman, F., 7; Koch, A., 2.
Notochampsa.—Broom, R., 9.
Notoprotogonia.—Ameghino, F., 2.
Notothyris.—Diener, C.
Nottaway R. (Quebec).—Bell, R.
Noumeite. *See* Garnierite.
Nova Scotia (Canada).—Bell, R., 2; Faribault, E. R.; Gilpin, E., Jun., 1–4; Poole, H. S., 2.
Novale (Venetia).—Squinabol, S.
Novi-Genoa railway.—Taramelli, T., 4.
Novi Ligure (Piedmont).—Sacco, F.
Novogrudek (Minsk Gov.).—Missuna, A., 2.
Nozelda (Nevada).—Lakes, A., 6.
Nucula.—Archangel, A. D.; Bœhm, G.; Borisyak, A.; Clarke, J. M., 2; Dreger, J.; Esch, E. von; Oppenheim, P.
Nuculites.—Clarke, J. M., 2; Reed, F. R. C., 2.
Nugget Point (N.Z.)—Speight, R.
Nugsuak (Greenland).—Phalen, W. C.
Nummulites.—Fornasini, C., 2; Holland, R.; Prever, P. L., 2.
Nummulitic limestone, Senegambia.—Meunier, S., 2.
Nuneaton (Warwick).—Swallow, F. C.
Nyasmi R. (Urals).—Vuisotzski, N.
Nyctosaurus.—Williston, S. W.
Nýřan (Bohemia).—Ryba, F.
Nyslott (Finland).—Berghell, H.

Obi (D. E. I.).—Martin, K.
Oboian (Kursk).—Armashevski, P.
Ocean-basins, origin of.—Mackie, W.
——, deposits.—Robson, H.
—— water, origin of mineral constituents.—Macallum, A. B.
Oceanic rocks, Trinidad.—Guppy, R. J. L., 2.
Oceanography. — Monaco, Prince of; Thoulet, J.
Ochetoceros.—Ilovaïski, D.
Ochre, Georgia.—Hayes, C. W., 8.
Odenwald (Hesse). — Harmann, P.; Salomon, W., 2 & 3.
Odontoptera.—Spriestersbach, J.
Œland I. (Baltic).—Huene, F. von, 1.
Œtz Valley (Tyrol)—Ampferer, O., 3.
Œynhausen, Bad (Westphalia).—Mueller, G., 4.
Ofoten Railway (Norway).—Hecker, —.
Oglio R. (Lombardy).—Hess, H.
Ohio (U.S.A.).—Adams, G. I., 5; Bownocker, J. A.; Flynn, B. H.; Fœrste, A. F.; Griswold, W. T.; Stevenson, J. J.; Tight, W. G.; Williams, H. S., 2.
Oignies (Namur).—Stainier, X.
Oil shale, Natal.—Dunstan, W. R., 4.
——, New South Wales.—Atkinson, A. A.; Pittman, E. F.
——. *See also* Petroleum, &c.
Oioceros.—Schlosser, M., 3.
Oklahoma (U.S.A.).—Adams, G. I., 4 & 5.
Olcostephanus.—Healey, M.; Yabe, H.
Old Red Sandstone, Scotland.—Goodchild, J. G.; Traquair, R. H., 2.
Oldfieldthomasia.—Ameghino, F.
Olean (N. Y.).—Clarke, J. M., 6.
Olenellus.—Delgado, J. F. N., 2.
Olgiasca (Lombardy).—Repossi, E.
Oligoporus.—Fraipont, J.; Klein, M. J.
Oliva.—Dall, W. H.
Olivella.—Dall, W. H.; Esch, E. von.
Olivine, titaniferous.—Brugnatelli, L.
Olomutschan (L. Austria).—Trauth, F.
Olympia (Wash.).—Upham, W., 6.
Omomys.—Wortman, J. L.
Omphaloptycha.—Picard, A.
Ontario (Canada). — Adams, F. D.; Bolton, L. L.; Carter, W. E. H., 1 & 2; Coleman, A. P.; Graton, L. C.; Leith, C. K., 2; Miller, W. G., 1 & 2; Parks, W. A.
—— Lake (N. Am.).—Wilson, A. W. G., 2.
Oolite, Bedfordshire.—Woodward, H. B., 4.

Oolite, Hanover.—Hoyer, W., 2.
——, Northants.—Thompson, B., 2.
——, type-fossils.—Allen, H. A.
——, water, salinity of.—Fischer, W. W.
——, Yorkshire.—Fox-Strangways, C.
Opal, formation of.—Macdonald, R. M.
——, Gippsland.—Ferguson, W. H.
——, New South Wales.—Pittman, E. F.
Ophite, Biarritz.—Stuart Menteath, P. W.
Ophthalmosaurus.—Fraas, E., 2.
Opis.—Cossmann, M., 3.
Oppelia.—Uhlig, V.; Yokoyama, M., 2.
Opsis.—Merciai, G.
Orange R. Colony (S. A.).—Skinner, B.
Orbicella.—Felix, J., 2.
Orbiculoidea.—Clarke, J. M.; Reed, F. R. C.
Orbignyella.—Ulrich, E. O.
ORBIGNY'S Nummulitidæ.—Fornasini, C., 2.
Orbitoides.—Prever, P. L., 1 & 3.
Ordovician, Gothland.—Tœrnquist, S. L.
——, Indiana.—Fœrste, A. F., 1 & 2.
——, Pennsylvania.—Collie, G. L.
Ore-deposition.—Emmons, S. F., 3.
Ore-deposits, Abkhasia.—Zeitlin, A. G.
——, Baden.—Lang, I.
——, chemistry of.—Jenney, W. P., 2.
——, contact-metamorphism &.—Hess von Wichdorf, H.; Klockmann, F.; Spurr, J. E., 3; Stevens, E. A.; Weed, W. H., 5.
——, Germany.—Krahmann, M., 2.
——, New Caledonia.—Glasser, E.
——, New Zealand.—Gordon, H. A.
——, origin of.—Frazer, P., 2; Kemp, J. F., 1 & 2; Sachs, A.; Wilson, E. B.
——, Peru.—Loredo, J. A.
——, phosphorus &.—Launay, L. de, 3.
——, secondary enrichment.—Delkeskamp, R., 2; Weed, W. H., 6.
——, Silesia.—Sachs, A.
——, Tasmania.—Twelvetrees, W. H., 3 & 7–10; Wallace, W. H., 1 & 2.
——, United States.—Emmons, S. F., 1–3; Jenney, W. P.
——. *See also* Gold, Iron, &c.
Ores, analysis of Austrian, &c.—John, C. von, 2.
Oregon (U.S.A.).—Chamberlin, T. C.; Russell, I. C., 2.
Orenburg Gov. (Russia).—Nikolaev, D., 2.
Orkney Is., South (Atlantic).—Pirie, J. H. H.
Orleans Basin (Cal.).—Hershey, O. H., 2.
Orléanais (France).—Dollfus, G. F., 3.
Orléansville (Algeria).—Sarthou, J., 2.
Ornithoides.—Matthew, G. F., 4.
Ornitholestes.—Osborn, H. F.
Ornithomimus, grasping power of manus.—Lambe, L. M., 2.
Oroacrodon.—Ameghino, F., 2.
Orographical connection of Europe & Asia.—Kropotkin, Prince P., 2; Suess, E., 3.
Orography, Alaska & British Columbia.—Spencer, A. C.
——, Asia.—Hobbs, W. H., 3; Kropotkin, Prince P., 1 & 2; Suess, E., 3; Tronnier, R.
——, Austria-Hungary.—Diener, C., 4.
——, England & Wales.—Mill, H. R.
——, New Mexico.—Herrick, C. L.
——, Switzerland.—Salomon, W.
——, Umbria.—Verri, A.
——, world.—Golfier, J.
Oron-la-Ville (Vaud).—Kissling, E.
Orpiment—Stevanovič, S., 2.
Orthis.—Clarke, J. M.; Drevermann, F., 2; Guerich, G.; Reed, F. R. C.
Orthoceras.—Clarke, J. M., 11; Kindle, E. M., 2.
Orthoclase.—Duparc, L., 2; Zemyatčenski, P.
Orthogonal system, earth &.—Golfier, J.
Orthonota.—Drevermann, F., 2.
Orthonychia.—Perner, J.
Orthophragmina.—Prever, P. L., 1 & 3.
Orthotichia.—Girty, G. H.
Ortler Alps (Lombardy).—Hammer, W.; Termier, P., 5 & 7.
Orygoceras.—Lœrenthey, E.
Orzechau, Gross- (Moravia).—Rzehak, A.
Oscura, Sierra (New Mex.).—Turner, H. W.
Osmeroides.—Hay, O. P., 2.
Ossiferous cavern, Grange Quarry.—Arnold-Bemrose, H. H., 3.
Ossola (Piedmont).—Stella, A.
Osteopygis.—Wieland, G. R.
Ostracoda, Cretaceous.—Chapman, F.
——, Devonian.—Dollé, L.; Leriche, M., 6.
——, Jurassic.—Chapman, F., 2.
——, Silurian.—Chapman, F., 5; Clarke, J. M., 1, 3, & 12; Jones, T. R.; Ruedemann, R.
——, Triassic.—Walther, J., 2.
Ostrea.—Esch, E. von; Ihering, H. von; Oppenheim, P.; Remeš, M.
Ostroviza (Dalmatia).—Dainelli, G.
Otago (N.Z.).—Hamilton, A.; Seelye, F. T.
Otero, ancient lake (New Mex.).—Herrick, C. L., 3.
Otoceras-beds, Rimkin Paiar.—Nœtling, F., 3.
Otolites. *See* Fishes.
Otolithus.—Wollemann, A., 4.
Otonphepus.—Cushman, J. A.
Otospira.—Perner, J.
Otozamites.—Zeiller, R., 2.
Ottawa (Canada).—Gordon, C. H., 2.
Ottweil-Beds, Silesia.—Dathe, E.
Otway Coast (Victoria).—Deane, H.
Oucane de Chabrières (Hautes-Alpes).—Martel, E. A., 10.
Ougrée (Liége).—Questienne, P., 3.

Oupliz-Tsiké (Transcaucasus).—Martel, E. A., 8.
Ouray (Colo.).—Purington, C. W.
Owen, Mount (Tasm.).—Gregory, J. W., 4.
Ox Mts. (Sligo, &c.).—MacHenry, A.
Oxfordian, Russia.—Ilovaïski, D.
Oxfordshire.—Bell, A. M.; Foley, M. C.; Walford, E. A.; White, H. J. O.
Oxyrhina.—Chapman, F., 7.
Ozark uplift, Missouri.—Ball, S. H.

Pachucha (Mex.).—Halse, E.
Pachycardia.—Broili, F., 3.
—— -beds, Seis Mt.—Waagen, L.
Pachyosteus.—Jækel, O., 3.
Pachyrhizodus.—Hay, O. P.
Pachytragus.—Schlosser, M., 3.
Paderborn (Westphalia).—Stille, H., 1 & 2.
Pagodea.—Perner, J.
Paita (Peru).—Lopez, F. O.
Palæacmæa.—Perner, J.
Palæacodon.—Wortman, J. L.
Palæoascia.—Meunier, F.
Palæoblattina.—Agnus, —.
Palæobotany, 1897–1900.—Zeiller, R.
——. *See also* Plants.
Palæodiscus.—Spencer, W. K.
Palæolagus.—Matthew, W. D.
Palæolithic floor, Prah Sands.—Reid, C., 4.
—— implements, Swanscombe.—Stopes, C.
—— ——. *See also* Implements.
Palæomastodon.—Andrews, C. W., 1 & 4.
Palæomerycide.—Schlosser, M.
Palæomeryx.—Pavlov, M., 2; Schlosser, M., 5.
Palæoneilo.—Borisyak, A.; Clarke, J. M., 2; Reed, F. R. C., 2.
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——, first use of the term.—Eastman, C. R., 6.
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Palæoryx.—Schlosser, M., 3.
Palæoscurria.—Perner, J.
Palæosphæroma.—Remeš, M.
Palæosphegina.—Meunier, F.
Palæospondylus.—Sollas, W. J., 2.
Palæozoic, America, Eastern N.—Ulrich, E. O., 2.
——, Galician Podolia.—Teisseyre, W.
Palæozoic, Mexico.—Angermann, E., 2.
—— fossils, catalogue of New York State Museum.—Clarke, J. M., 10.
Palampur (Kashmir).—Holland, T. H.
Palatino, Monte (Rome).—Meli, R.
Palermo (Sicily).—Checchia-Rispoli, G.
Palestine.—Bonney, T. G., 2; Hume, W. F.; Rauff, H., 2.
Palhyæna.—Schlosser, M., 2.
Pallasite.—Klein, C., 5.
Palmoxylon.—Stenzel, K. G.
Palomas (Mexico).—Villarello, J. D.
Palwalli (Mysore).—Wetherell, E. W., 2.
Panacites.—Deane, H.
Panama (C. Am.).—Cushman, J. A., 2; Williams, E. G.
Pandora.—Dall, W. H.
Paniselian, Senne Valley.—Rutot, A., 9.
——. *See also* Tertiary, &c.
Papyrotheca.—Rzehak, A., 2.
Pará (Brazil).—Clarke, J. M.; Katzer, F.
Parabosephalus & *Paracamelus.*—Schlosser, M., 2.
Paradoxides.—Delgado, J. F. N., 2.
Paradoxorhyncha.—Chapman F., 2.
Parallelodon.—Cossmann, M., 3; Hind, W., 2.
Paramylodon.—Brown, B., 2.
Paranauchenia.—Ameghino, F., 2.
Paratissotia.—Hyatt, A.
Pareiasaurus.—Broom, R.
Parietal eye in fossil reptilia & fishes.—Jækel, O.
Paris (France).—Elsden, J. V., 4.
—— Basin (France).—Bédé, P., 3 & 4; Boussinesq, J.; Dollfus, G. F., 7 Gosselet, J., 6; Grossouvre, A., 3; Leriche, M., 2; Meunier, S., 3; Péron, A.; Priem, F., 2; Raulin, V.
—— International Exhibition, 1900.—Gesell, A., 2.
——, sub-soil of.—Durandière, — de la.
Park City (Utah).—Boutwell, J. M.
Parker's Reef, Gordon's (Victoria).—Howitt, A. M.
Paronæa.—Prever, P. L., 2.
Paronipora.—Capeder, G., 2.
Paropsonema.—Clarke, J. M., 11.
PARRAN, A. *See Obit.*, Aguillon, L.
Paruschowitz (Silesia).—Henrich, F., 2.
Pas-de-Calais (France).—Gosselet, J., 3 & 5.
Patagonia (S. Am.).—Angelis d'Ossat, G. de; Brown, B.; Cordovez, M.; Fletcher, L., 4; Holdich, Sir T. H.; Ihering, H. von, 2; Lambert, J.; Tournouër, A.; Wilckens, O.
Patton, Cape (Victoria).—Dennant, J.
Paudex (Vaud).—Kissling, E.
Pausen, Lake (Prussia, E.).—Braun, G.
Pavagada Taluk (Mysore).—Wetherell, E. W., 2.
Paz, La (Lr. Cal.).—Angermann, E.
Pearl (Colo.).—Spencer, A. C., 3.
Peat, Canada.—Carter, W. E. H., 2.
——, origin of.—Frueh, J., 3; Grand' Eury, —, 2; Moss, C. E.

Peat, Switzerland.—Frueh, J., 3.
——, Yorkshire.—Moss, C. E., 2.
Pebbles, Atlantic floor.—Cole, G. A. J., 3.
——, Ault.—Bardou, —.
——, facetted. *See* Windworn stones.
——, Stavelot Gedinnian.—Lohest, M., 2.
Pebbly marls, Minsk.—Missuna, A., 2.
Pechoraland (Russia).—Pavlov, A. P.
Pecopteris.—Arber, E. A. N.; Zeiller, R., 2.
Pecten.—Kittl, E.; Michaelovski, G. P.; Philipp, H.; Remeš, M.; Tommasi, A.; Vinassa de Regny, P. E., 3.
Pectunculus.—Oppenheim, P.
Peebles (Scotland).—Goodchild, J. G., 3.
Pegmatite, Como (Lake of).—Repossi, E.
——, Erythræa.—Aloisi, P., 2.
——, Sweden.—Elsden, J. V., 3.
——, Tyrol.—Hammer, W.
Pelé, Mont (Martinique).—Gilbert, G. K., 3; Heilprin, A.; Jaggar, T. A.; Lacroix, A., 5; Russell, I. C., 3.
Peléliths.—Winchell, N. H., 4.
Pelomedusa.—Reinach, A. von.
Pelvoux massif (France).—Jacob, C.
Pembrokeshire.—Reed, F. R. C., 3.
Pennine Moors.—Moss, C. E., 1 & 2.
Pennsylvania (U.S.A.).—Campbell, M. R., 1 & 2; Dale, T. N.; Emmons, S. F., 4; Fluck, F.; Glenn, L. C.; Grant, U. S.; Lyman, B. S.; Peck, F. B.; Stevenson, J. J.; Stose, G. W.; White, D., 2; Williams, H. S., 2.
Pentacrinus.—Loriol, P. de, 2; Schuchert, C., 3; Wollemann, A., 4.
Penzance (Cornwall).—Davison, C., 6.
Peperini, Rome.—Portis, A.
Peratherium.—Matthew, W. D.
Perhippidion, Periacrodon, & Peripantostylops.—Ameghino, F., 2.
Pericyclus.—Crick, G. C., 5.
Peridotite, Valais.—Preiswerk, H.
Periploma.—Dall, W. H.
Perisphinctes.—Campana, D. del; Healey, M.; Ilovaïski, D.; Loriol, P. de; Yokoyama, M., 2.
Permian, Ariège.—Caralp, J., 4.
——, Carniola.—Kossmat, F., 2.
——, Eurasia.—Tchernyshev, T.
——, Hesse.—Chelius, C., 3.
——, Himalayas.—Diener, C.
——, Kashmir.—Oldham, R. D., 2.
——, Odenwald.—Salomon, W., 2 & 3.
——, Prussia.—Zimmermann, E.
——, Salt Range.—Nœtling, F., 2.
—— sandstone-deserts.—Kœnen, A. von.
——, Saxony.—Dammer, B.
——, Texas.—Neumayer, L.
Permo-Carboniferous, Otago.—Park, J., 5.
——, Tongking.—Zeiller, R., 2.
Perna.—Cossmann, M., 4; Yokoyama, M.
Pernes (Pas-de-Calais).—Dollé, L. Leriche, M., 6.
Peronosporites.—Clarke, J. M., 11.
Perry district, Queensland.—Ball, L. C.
Persia.—Pilgrim, G. E.; Stahl, A. F.
Persimmon Creek (N. Car.).—Klein, C., 2; Tassin, W.
Perthshire (Scotland).—Barrow, G.; Coates, H.; Kerr, W., 1–3.
Peru (S. Am.).—Anon., 16 & 17; Benrath, A.; Bernard, C.; Braun, J. M.; Cole, G. A. J., 2; Denegri, A.; Duval, A.; Elmore, T.; Guillet, E. A.; Habich, E. A. V. de; Hadley, W. M.; López, F. O.; Loredo, J. A.; Ochoa, N. G.; Pinzás, E. J., 1 & 2; Robledo, L. M.; Steinmann, G., 2; Tamayo, A.; Tristan, A.; Ugarteche, M. de; Umlauff, A. F.; Venturo, P. C.; Zumaita, W.
Pest (Hungary).—Lœrenthey, E., 2.
Peter's Valley (Grisons).—Goldschmidt, V.
Petris (Hungary).—Papp, K.
Petrographical microscope.—Souza-Brandão, V. de, 2; Wright, F. E.
Petrography & other sciences.—Zirkel, F.
——, text-books.—Reinisch, R.; Rosenbusch, H.
Petroleum, Alaska & Pennsylvania.—Emmons, S. F., 4.
——, Borneo.—Schmidt, C.
——, Bukovina.—Olszewski, S.
——, California.—Eldridge, G. H., 2; Simmersbach, B.
——, Canada.—Henry, T. A., 2 & 8.
——, Caucasus.—Thiess, F.; Yushkin, F.
——, Colorado.—Emmons, S. F., 4; Fenneman, N. M.
——, composition of.—Mabery, C. F.
——, Galicia.—John, C. von, 2; Schmidt, C., 3; Zuber, R., 3.
——, Idaho.—Russell, I. C., 2.
——, India.—Evans, J. W.
——, Indiana.—Fuller, M. L.
——, Kansas.—Heydrick, W. H.
——, Louisiana.—Hayes, C. W., 4 & 9.
——, Mexico.—Alcala, M.; Villarello, J. D., 3.
——, New Caledonia.—Glasser, E.
——, occurrence of.—Brough, B. H Dvorkovitz, P.
——, Ohio.—Bownocker, J. A.; Griswold, W. T.
——, origin of.—Adams, G. I., 3; Broadhead, G. C.
——, Peru.—López, F. O.; Pinzás, E. J., 2.
——, radioactivity of.—Himstedt, F.
——, Rumania.—Poni, P.
——, Texas.—Hayes, C. W., 4 & 9 Hill, R. T.
——, text-book on.—Redwood, B.
——, Tiflis Gov.—Riabinin, A.
——, Trinidad.—Henry, T. A., 3 & 5.

Petroleum, Turkestan.—Weber, V.
——, United States production of.—Oliphant, F. H.
——, Westphalia.—Mueller, G., 3.
——. *See also* Asphalt, Bitumen, Manjak, Oil-shales, &c.
Petrology, America (N.), 1902.—Weeks, F. B., 2.
Petrovicia.—Fritsch, A., 2.
Phacoides.—Dall, W. H.
Phacops.—Lake, P.; Reed, F. R. C., 3.
Phænodesmia.—Borisyak, A.
Phanophilus.—Ameghino, F., 2.
Philippine Is. (Pacific).—Stainier, X., 5.
Phillips River (W. Austral.).—Blatchford, T.
Phillipsia.—Schumacher, R.
Phlegræan Fields (Naples).—Lorenzo, G. de.
Phlogopite.—Coomáraswámy, A. K., 6.
Phœnixauchenia.—Ameghino, F., 2.
Pholadomya.—Dollfus, G. F., 5.
Pholidops.—Clarke, J. M.
Pholidostrophia.—Kindle, E. M., 2.
Phonolites, Sudan.—Gentil, L.
Phormocyrtis.—Squinabol, S., 3.
Phosphates, Australia.—Chewings, C.
——, determination of, in soils.—Ibáñez, J.
——, Florida & N. & S. Carolina.—Struthers, J., 8.
——, Queensland.—Dunstan, B.
——, Tennessee.—Eckel, E. C., 2; Hayes, C. W., 6.
Phosphatic chalk, Somme.—Rabelle, —.
Phosphorus, ore-deposits &.—Launay, L. de, 3.
Photographs, geological. *See* Geological.
Photography, earthquake-records by.—Agamennone, G.
Phragmostoma.—Perner, J.
Phyllites.—Deane, H.
Phyllo-Tetragraptus Beds, Gothland.—Tœrnquist, S. L.
Phyllocarida, Silurian.—Chapman, F., 5.
Phylloceras.—Campana, D. del; Uhlig, V.
Phyllocœnia.—Felix, J.
Physiography.—Russell, I. C., 5.
Pichucalco (Mex.).—Alcala, M.
Picrite, Dillenburg.—Brauns, R.
Pictou (Nova Scotia).—Poole, H. S., 2.
Pidh (Salt Range).—Grundy, J., 7.
Piedmont (Italy).—Kæch, M.; Pampaloni, L.; Pellati, N.; Roccati, A.; Sacco, F., 1 & 2; Zaccagna, D.
Piedmont Plateau (Eastern States, U.S.A.).—Mathews, E. B.
Pienaars R. (Transvaal).—Hall, A. L., 2; Kynaston, H.
Pietrasanta (Tuscany).—Pantanelli, D., 2.
'Pietre verdi,' Mesozoic age of, in Western Alps.—Franchi, S., 2.
Pike Co. (Ark.).—Hayes, C. W., 5.
Pillow-lava, Cornwall.—Prior, G. T.
Pilsen (Bohemia).—Ryba, F.
Pine-cones, Neckar Valley Quaternary.—Glueck, H.
Pine I. (Tasmania).—Legge, W. V.
Pinna.—Tommasi, A., 2.
Pinus.—Clerici, E., 2.
Pipestone Springs (Mont.).—Matthew, W. D.
Piquetberg (Cape Colony).—Rogers, A. W., 3.
Pisa (Tuscany).—Sestini, F.
Pisanite.—Schaller, W. T.
Pisano, Monte (Tuscany).—Aloisi, P.
Pisctulj (Montenegro).—Nelli, B.
Pisocrinus.—Rowley, R. R.
Pitaria.—Dall, W. H.
Pitchblende. *See* Uraninite.
Pitfield (Victoria).—Deane, H.
Pittosporum.—Deane, H.
Pittsburg (Pa.).—Grant, U. S.
Pizmeda (Tyrol).—Proboscht, H.
Placenticeras.—Hyatt, A.
Placerias.—Lucas, F. A., 2.
Placers, Alaska.—Brooks, A. H.
——, British Columbia.—Atkin, A. J. R.
——, California.—Lindgren, W.
——, Rhine R.—Neumann, B.
Placotrochus.—Dennant, J., 3.
Placunopsis.—Remeš, M.
Plagioclase.—Tertsch, H.
——. *See also* Felspars.
Plains, America (N.).—Upham, W., 3.
——, Germany (N.).—Hoyer, W., 3.
——, New Mexico enclosed ('Bolson').—Keyes, C. R., 2.
Planitrochus.—Perner, J.
Planorbis.—Kormos, T.; Roman, F.
Plant-seeds. *See* Seeds.
—— -types, refigured.—Potonié, H.
Plants, Antarctic fossil.—Nathorst, A. G.
——, Arctic fossil.—Solms-Laubach, H. Graf zu.
——, British-Museum fossil.—Arber, E. A. N., 4.
——, Carboniferous.—Arber, E. A. N., 1 & 6; Barsanti, L.; Berry, E. W., 2; Dathe, E.; Etheridge, R., *fil.*, 3; Gerrard, J., 2; Grand'Eury, —; Herrick, C. L.; Hovey, E. O., 2; Kidston, R.; Oliver, F. W., 1 & 2; Pellati, N.; Potonié, H.; Renault, B., 1 & 2; Scott, D. H.; Zalesski, M. D.
——, coal-forming.—Grand'Eury, —, 2.
——, Cretaceous.—Bureau, E.; Ward, L. F.
——, Devonian.—Potonié, H.
——, distribution in geological time.—Seward, A. C., 5.
——, homœomorphy of fossil.—Arber, E. A. N., 7.
——, Jura-Triassic.—Etheridge, R., *fil.*, 2.
——, Jurassic.—Seward, A. C., 1–6; Solms-Laubach, H. Graf zu; Wieland, G. R., 3; Zeiller, R., 4.

Plants, peat-forming.—Frueh, J., 3; Grand'Eury, —, 2.
——, Permian.—Rýba, F.; White, D., 2.
——, Permo-Carboniferous. — Chapman, F., 3; Leslie, T. N.; Seward, A. C., 3 & 4; Zeiller, R., 2.
——, Quaternary.—Glueck, H.; Range, P.; Reid, C.
——, Rhætic.—Seward, A. C., 4.
——, Silurian.—Arber, E. A., 5; Hauthal, R.
——, soils &.—Lewis, F. J.
——, structure of fossil.—Penhallow, D. P.
——, Tertiary.—Arber, E. A. N., 2; Clerici, E., 2; Deane, H; Engelhardt, H.; Johnson, J. P., 2; Laurent, L.; Pampaloni, L.; Penhallow, D. P.; Peola, P.; Squinabol, S.; Stenzel, K. G.
——, Triassic.—Leuthardt, F.
——. *See also* Palæobotany.
Platinum, California, &c.—Struthers, J., 2.
——, Sumatra.—Hundeshagen, L.
——, Urals.—Vuisotzki, N.
——, Wyoming.—Emmons, S. F., 2; Kemp, J. F., 3.
Platyceras.—Clarke, J. M., 2; Perner, J.
Platygonus.—Gidley, J. W., 2; Wagner, G.
Plauen (Saxony).—Weise, E.
Plectambonites.—Clarke, J. M., 12.
Plectonotus.—Clarke, J. M., 2.
Plesiolampas.—Bather, F. A.
Plesiosaurus.—Brown, B., 3; Eastman, W. F., 5; Gwinnell, W. F.; Yakovlev, N., 2.
Pleurodesma.—Dall, W. H.
Pleuronautilus.—Crick, G. C., 3.
Pleurophorella.—Girty, G. H., 4.
Pleurotoma.—Archangel, A. D.; Esch, E. von; Laskarev, V.; Pritchard, G. B.
Pleurotomaria.—Diener, C.; Guerich, G.; Kindle, E. M., 2; Loriol, P. de; Wollemann, A., 4.
Plicatula. — Cossmann, M., 3 & 4; Mayer-Eymar, C.; Oppenheim, P.; Remeš, M.; Reynolds, S. H.
Pliocene. *See* Tertiary, &c.
Ploconema.—Perner, J.
Plumasite.—Lacroix, A.
Plumb-line variations. *See* Gravity.
Podocampe.—Squinabol, S., 3.
Podocnemis.—Reinach, A. von.
Podolia (Galician).—Teisseyre, W.
Pœcilozonites.—Gulick, A.
Poitiers (France).—Cossmann, M., 3.
Poland (Russian).—Michalski, A.; Rehbinder, B. von, 2.
Polarized light, minerals &.—Hauswaldt, H.; Osthoff, A.; Souza-Brandão, V. de.
Pölland (Carniola).—Kossmat, F., 3.
Pollicipes.—Ruedemann, R.
Poltava Gov. (Russia).—Armashevski, P.; Morozevich, I.
Polyhalite.—Van't Hoff, J H., 6.
Polypora.—Cumings, E. R., 2.
Polyptychodon.—Sauvage, H. E., 3.
Polystylops.—Ameghino, F., 2.
Polytropis & Porcellia.—Perner, J.
Pomerania (Prussia).—Haldfass, W.; Linstow, O. von; Maas, G., 2; Wahnschaffe, F.
Pondoland (S. Africa).—Chapman, F.
Ponte Molle (Rome).—Stefani, C. de.
Pontesford Hill (Shropshire).—Boulton, W. S.
Pontian deposit, Croatia.—Gorjanović-Kramberger, D.
—— ——, Hungary.—Halaváts, G., 2.
Pontobdellopsis.—Ruedemann, R.
Porcupine Bank (Atlantic).—Cole, G. A. J., 3.
Poricella.—Canu, F., 2.
Porkura (Hungary).—Mauritz, B.
Poromya.—Dall, W. H.
Poronai (Hokkaido).—Yonekra, K.
Porosphæra.—Hinde, G. J., 2.
Porphyrite, Dandenong.—Sutherland, I. M.
Porphyroid slates, Taunus.—Buecking, H.
Porphyry, Ecuador.—Reiss, W., 1 & 2.
——, Erythræa.—Aloisi, P., 2.
——, Grisons.—Rüetschi, G.
——, Hesse.—Harmann, P.
——, Meuse.—Gosselet, J., 2.
——, Philippine Is.—Stainier, X., 5.
——, Piedmont.—Kæch, M.
——, Saxony.—Dammer, B.
——, Shantung.—Rinne, F., 3.
——, Texas.—Iddings, J. P., 3.
——, Tyrol.—Dœlter, C., 3; Romberg, J., 2 & 4; Went, K.
——, Victoria.—Gregory, J. W.
Portland cement.—Eckel, E. C., 5; Kimball, L. L.; Smith, E. A.
Portlandian, Boulonnais.—Zeiller, R., 4.
Portugal.—Choffat, P., 1–4; Delgado, J. F. N.; Dollfus, G. F.; Felix, J.
Portuguese E. Africa.—Johnson, J. P., 5; Sawyer, A. R., 2.
'Posen flaming-clay,' Silesian so-called. —Berendt, G.; Maas, G.
Posidomya.—Delgado, J. F. N., 2.
Posidoniella.—Hind, W., 3.
Postale, Monte (Venetia).—Eastman, C. R., 3.
Potash-salts, Germany.—Brough, B. H.; Galloway, W.; Ochsenius, C., 4 & 5; Van't Hoff, J. H.; Zimmermann, E.
—— ——, secondary mineralization of.—Ochsenius, C., 4 & 5.
—— ——, Wyoming.—Read, T. T.
——. *See also* Alkali-deposits, &c.
Potenza (Basilicata).—Marani, M.
Potholes, Beaver R. (Pa.).—Hice, R. R.
——, Brenton R.—Squinabol, S., 4.
——, glacial.—Merrill, G. P.
Potrerillo (Chile).—Kæmpffer, E.
Potsdam Sandstone, Lake Champlain.—Van Ingen, G.

Potzberg (Rhenish Bavaria).—Leppla, A.
Powell, J. W. *See Obit.*, Gilbert, G. K., 6; Walcott, C. D.
Prah Sands (Cornwall).—Reid, C., 4.
Prasinite, Tuscany.—Manasse, E.
Prasopora.—Ulrich, E. O.
Pre-Cambrian volcanoes.—Callaway, C.
Pre-Glacial deposits, Pomerania, &c.—Maas, G., 2.
—— river, Gulf of St. Lawrence.—Poole, H. S., 3.
Precious stones.—Brough, B. H.
Predazzo (Tyrol).—Kolenec, F.; Philipp, H.; Slavík, F., 2.
Prehnite.—Vredenburg, E.
Prestwichia.—Beecher, C. E.
Pretoria (Transvaal).—Hall, A. L., 2; Hatch, F. H.; Mellor, E. T., 1 & 2.
——. *See also* Transvaal.
Primitia.—Chapman, F., 5; Clarke, J. M., 12.
Prince Albert (Cape Colony).—Schwarz, E. H. L.
Prince, Grotte du (Mentone).—Boule, M., 2.
Proboscina, Jurassic.—Lang, W. D., 2.
Prodomaliscus.—Schlosser, M., 3.
Productus. — Etheridge, R., *fil.*, 3; Girty, G. H.
—— -limestone, Salt-Range.—Nœtling, F., 2.
Proëtus.—Lake, P.; Mailleux, E.; Reed, F. R. C., 4.
Progaleopithecus & *Promacrauchenia.*—Ameghino, F., 2.
Promygale.—Fritsch, A., 2.
Pronycticebus.—Grandidier, G., 2.
Propleura.—Wieland, G. R.
Prosciurus.—Matthew, W. D.
Prosolarium.—Perner, J.
Prospondylus.—Broili, F., 3.
Proterix.—Matthew, W. D., 2.
Proterosuchus.—Broom, R., 6.
Proterotherium.—Ameghino, F., 1 & 2.
Protetraceros & *Pseudobos.*—Schlosser, M., 2.
Prothelyphonus.—Fritsch, A.
Protocardia.—Dall, W. H.
Protocetus.—Fraas, E.
Protocula.—Kittl, E.
Protohippus.—Pavlov, M.
Protolepidodendron.—Potonié, H., 2.
Protoma & *Psammobia.*—Dollfus, G. F., 5.
Protorcula.—Picard, A.
Protoryx & *Protragelaphus.*—Schlosser, M., 3.
Protosphyræna.—Hay, O. P.
Provence (France).—Issel, A., 2.
Prowarthia.—Collie, G. L.
Prussia, 200 years mining in, &c.—Schmeisser, K.
——. *See also* Glacial deposits, &c.
—— (E.), amber-deposits.—Jentzsch, A.
—— (—), lakes of.—Braun, G.
Przemyśl (Galicia).—Wójcik, K.
Psammechinus.—Lambert, J.
Pseudobradypus.—Matthew, G. F., 4.
Pseudocidaris.—Tokunaga, S.
Pseudocucullæa.—Solger, F.
Pseudoliva.—Archangel, A. D.; Esch, E. von.
Pseudomonotis.—Philipp, H.
Pseudomorphs.—Cornu, F.; Dœll, E.; Kuntz, J., 2; Rowe, J. P.; Schaller, W. T.
Pseudoniscus.—Clarke, J. M., 3.
Pseudosalenia.—Loriol, P. de, 2.
Pseudosporochnus.—Potonié, H., 2.
Pseudotectus.—Perner, J.
Pseudotissotia.—Esch, E. von.
Pseudotragus.—Schlosser, M., 3.
Pseudotylostoma.—Ihering, H. von.
Pseudotypotherium.—Ameghino, F., 2.
Psilophyton.—Potonié, H., 2.
Pteranodon.—Eaton, G. F.
Pteraspis.—Leriche, M., 3.
Pterichthys.—Traquair, R. H., 2.
Pterinæa.—Drevermann, F., 2.
Pterinopecten.—Hind, W., 2.
Pterocorys.—Squinabol, S., 3.
Pterodactyl, fingers of.—Williston, S. W., 3.
Pterodon.—Andrews, C. W.
Pterophyllum.—Zeiller, R., 2.
Pteropod-marl, Budapest.—Lœrenthey, E., 1 & 2.
Pteropoda, Cambrian.—Delgado, J. F. N. 2.
——, Siluro-Devonian.—Chapman, F., 4.
Pterorhytis.—Dall, W. H.
Ptomatis.—Clarke, J. M., 2.
Ptychocladia.—Ulrich, E. O.
Ptychocynodon.—Seeley, H. G., 2.
Ptychodus.—Pantanelli, D., 3; Woodward, A. S., 2.
Ptychogaster.—Stefano, G. di.
Ptychomphalina.—Etheridge, R., *fil.*, 3.
Ptychonema.—Perner, J.
Ptychospira.—Greger, D. K.
Puget Sound (Wash.).—Upham, W., 6.
Pulacayo (Bolivia).—Toborvi, Z.
Pulchellia.—Hyatt, A.
Pully (Vaud).—Kissling, E.
Pumice, United States.—Pratt, J. H., 6.
——. *See also* Volcanoes, &c.
Punjab (India).—Simpson, R. R., 2.
Putilla R. (Bukovina).—Olszewski, S.
Putorius.—Praeger, R. L., 4.
Puy-Courny (Auvergne).—Capitan, L.
Pycnodus.—Koch, A., 4; Priem, F.
Pycnosterinx.—Hay, O. P., 2.
Pycnotrochus.—Perner, J.
Pygæus.—Eastman, C. R., 3.
Pyhrn Pass (U. Austria).—Geyer, G., 2.
Pyramidella.—Crema, C.
Pyrenees (Central).—Marchand, E.
—— (French).—Briet, L.; Cahen, A.; Carez, L., 2 & 5; Depéret, C.; Grossouvre, A. de; Roussel, J., 1 & 2.
Pyrenees goldfields (Victoria).—Bradford, W.
Pyrgulifera.—Lœrenthey, E., 3.

Pyrites.—Achiardi, G. d', 3; Dorlodot, L. de, 3; Eckel, E. C.; Ermisch, K.; Gaubert, P.; Goldschmidt, V., 3; Klockmann, F., 2; Mauritz, B.; Milch, L., 3; Schmidt, C., 4; Struthers, J., 10; Vogt, J. H. L., 2; Zimányi, K.
Pyroxene-rocks, alteration of.—Duparc, L., 3; Gordon, C. H.
Pyroxenite.—Sabatini, V.
Pyrrhotite.—Bergt, W.

Quang-Nam (Annam).—Hubert, H., 3.
Quarries, Great Britain, &c.—Atkinson, J. B., 1–3; Foster, Sir Clement Le N.
——, Paris subterranean.—Elsden, J. V., 4.
Quartz.—Becke, F., 2; Gaubert, P., 3; Kœchlin, R.; Kœnigsberger, J.; Kunz, G. F.; Pantanelli, D.; Rinne, F.
——, Carboniferous Limestone with.—Brien, V.; Fournier, G., 2.
——, deformation of.—Holmquist, P. J.; Milch, L.
—— -dykes, I. of Man.—Lomas, J., 6.
—— -felspar-porphyry, Texas.—Iddings, J. P., 3.
—— -geodes.—Billows, E.
—— -reef, Kromdraai.—Dœrffel, D., 2.
Quartzite-dykes, Snelston. — Arnold-Bemrose, H. H.
Quaternary, Aude.—Doncieux, L.
——, Austria (Lower).—Fuchs, T.
——, Calabria.—Fucini, A., 3.
——, Clacton-on-Sea.—Webb, W. M.
——, Cornwall.—Whitley, D. G.
——, Croatia.—Gorjanović-Kramberger, D., 2.
——, Denmark.—Holst, N. O.
——, Durham.—Woolacott, D.
——, Emilia.—Sangiorgi, D.
——, Germany (N.).—Frech, F., 2; Keilhack, K.; Krause, G.; Menzel, H.; Mueller, G., 4; Petersen, J.; Range, P.; Schmierer, T.
——, Gironde.—Daleau, F.
——, Gothland.—Munthe, H., 2.
——, Kolguev I.—Knepovich, N.
——, Lille.—Ladrière, J., 2.
——, Long I. (N.Y.).—Woodworth, J. B.
——, Moravia.—Rzehak, A.
——, Nantucket I.—Cushman, J. A., 3.
——, Nice.—Dépéret, C., 2.
——, Northumberland.—Woolacott, D., 3.
——, Paris Basin.—Bédé, P., 3 & 4.
—— Period, duration of the.—Rutot, A., 7.
——, Saxony.—Bergt, W., 3; Wuest, E.
——, Schelde R.—Gosselet, J.
——, Somme R.—Bédé, P., 5.
——, Thames Valley.—Hinton, M. A. C., 1, 2, & 3; Johnson, J. P., 1, 3, 4, & 8.
——, Tunis.—Bédé, P., 2.
——, Turkey in Europe.—English, T.; Newton, R. B., 4.
Quaternary, Watford.—Lones, T. E.
——, Westphalia.—Stille, H., 2.
——, Würtemberg.—Bræuhæuser, M.
——. *See also* Glacial Deposits, &c.
Quebec (Canada).—Bell, R.; Dresser, J. A., 1 & 2.
Queensland.—Ball, L. C., 1–6; Cameron, W. E.; Chapman, F., 3; Dunstan, B., 1 & 2; Jensen, H. J.; Lewis, A. A.; Macdonald, R. M.; Thomson, J. P.
Quenast (Brabant).—Simoëns, G.
Querciniuum.—Pampaloni, L.
Querum (Brunswick).—Wollemann, A., 3.
Quesnelle Forks (B.C.).—Brewer, W. M.
Quetta (Baluchistan).—Grundy, J., 8 & 13.
Quicksilver, British Columbia.—Kendall, J. D.; Monckton, G. F.
——, California.—Struthers, J., 3.
——, Mexico.—Villarello, J. D.
——, Peru.—Hadley W. M.; Tamayo, A.; Umlauff, A. F.
——, Texas.—Hill, B. F.; Moses, A. J., 2.
Quillan (Aude).—Carez, L.
Quinte Bay (Lake Ontario).—Wilson, A. W. G., 2.
Quiriquina I. (Chile).—Steinmann, G., 3.

Rabertshausen (Hesse).—Chelius, C., 3.
Radioactivity, gas (natural). — Maclennan, J. C.
——, mineral waters.—Himstedt, F.; Mache, H., 2; Strutt, R. J.
——, minerals &.—Bardet, G.; Kolbeck, F.; Pisani, F.
Radiolaria, Cretaceous.—Squinabol, S., 2 & 3.
Radium, carnotite with.—Phillips, A. H.
—— -minerals, Schlaggenwald.—Hoffmann, J., 1 & 2.
Radnor (Wales).—Raw, F.
Radula.—Nelli, B.
Rafinesquina.—Clarke, J. M., 12.
Ragusa (Sicily).—Lotz, H.
Raibl (Carinthia).—Gobl, W.
Railway, Ligurian-Apennine.—Sacco, F.
Raindrop markings, Triassic.—Spicer, Rev. E. C., 2.
Raised beaches, Clyde.—Hull, E.
—— ——, Co. Cork.—Muff, H. B.
—— ——, Courtmacsherry Bay. — Wright, W. B.
—— ——, Georgian Bay.—Comstock, F. M.
—— ——, Northern Hemisphere. — Geikie, Sir Archibald, 3 & 5.
—— ——, St. Lawrence Valley, &c.—Chalmers, R.
—— ——, Scotland.—Munro, R., 2.
—— ——, Småland lakes.—Gustafsson, J. P.
Raja.—Hay, O. P., 2.
Ramphodus.—Jækel, O., 2.
Rangifer.—Studer, T.
Raniganj (Bengal).—Saise, W.
Rapana.—Wollemann, A., 4.

Raphispira.—Perner, J.
Rapi (Peru).—Habich, E. A. V. de.
Rare earths.—Schilling, J.
Ratzeburg (Schleswig-Holstein).—Gagel, C., 2.
Rautenkranz (Saxony).—Hermann, P.
Raywood (Vict.).—Whitelaw, H. S.
Realgar.—Goldschmidt, V., 2; Stevanovič, S., 3.
Recoaro (Venetia).—Tommasi, A., 2.
Red Bank, Manchester.—Hobson, B.
'Red earth,' Apulia.—Vinassa de Regny, P. E., 2.
Red ochre, Sweden.—Moberg, J. C.
Red rain.—Flett, J. S., 2; Mill, H. R., 2.
Redding (Cal.).—Diller, J. S., 1–3.
Reefs. *See* Coral, Gold, Stone.
Remopleurides.—Clarke, J. M., 12.
Remscheid (Rh.-Pruss.).—Spriestersbach, J.
Renaix (Flanders).—Halet, F., 2.
RENARD, A. F. *See Obit.*, Geikie, Sir Archibald, 4.
Rennes (Britanny).—Dollfus, G. F., 4.
Rensselæria.—Fritsch, A.; Reed, F. R. C.
Reptilia, Cretaceous.—Broom, R., 8; Dollo, L., 1 & 2; Eaton, G. F.; Inkey, B. von; Lambe, L. M., 1 & 3; Loomis, F. B.; Lucas, F. A., 4 & 5; Lull, R. S.; Marr, J. E., 2; Sauvage, H. É., 3; Williston, S. W., 1 & 4.
——, Jurassic.—Broom, R., 9; Fraas, E., 2; Jækel, O., 6; Marr, J. E., 2; Osborn, H. F., 1 & 3; Sauvage, H. E., 2; Woodward, A. S., 7; Yakovlev, N., 2.
——, parietal eye in fossil.—Jækel, O.
——, Permian.—Broili, F., 2; Case, E. C.; Osborn, H. F., 4.
——, Permo-Triassic.—Broom, R., 1–7 & 10; Seeley, H. G., 1–3.
——, Quaternary, dispersal of.—Brown, A. E.
——, Rhætic.—Sauvage, H. É.
——, stomach-stones of.—Brown, B., 3; Eastman, C. R., 5.
——, Tertiary.—Stefano, G. di; Stromer, E. von.
——, Triassic.—Boulenger, G. A., 2 & 3; Broom, R., 1–7 & 10; Emerson, B. K., 2; Huene, F. von, 2; Lucas, F. A., 2; Merriam, J. C., 3; Osborn, H. F., 4; Woodward, A. S., 1 & 5; Yakovlev, N., 3.
——. *See also* Chelonia, Dinosauria, &c.
Requienia.—Pâquier, V.
Ressaix (Hainault).—Rutot, A., 1 & 2.
Retzia.—Reed, F. R. C.
Rewah Terr. (India).—Grundy, J., 5.
Reynès (Pyrénées Orientales).—Roussel, J.
Rhabdoconcha.—Picard, A.
Rhætian Alps.—Paulcke, W.
——. *See also* Alps.
Rhætic, Gloucestershire.—Reynolds, S. H.; Richardson, L.
Rhætic, Northants.—Thompson, B., 3.
——, Somerset.—Short, A. R.
——, Worcestershire.—Richardson, L., 4 & 6.
Rhamnacium.—Penhallow, D. P.
Rhapalonaria.—Ulrich, E. O.
Rhenish Bavaria.—Ammon, L. von; Kaiser, E., 4; Leppla, A.; Luczizky, W. von.
Rhine glacier-moraines.—Frueh, J.
Rhine R.—Neumann, B.
Rhinellus.—Hay, O. P., 1 & 2.
Rhinobates.—Hay, O. P., 2.
Rhinoceros.—Bortolotti, C.; Gorjanović-Kramberger, D., 2; Hinton, M. A. C., 2; Rausenberger, J.; Schlosser, M., 1 & 2; Schrœder, H.; Weber, M.
Rhodea.—Potonié, H., 2.
Rhodesia (S.A.).—Broad, W.; Brown, H.; Dowie, R. C.; Ferguson, D.; Mennell, F. P.
Rhodonite.—Colomba, L.
Rhombotrypa.—Ulrich, E. O.
Rhopalastrum.—Squinabol, S., 3.
Rhynchonella.—Dall, W. H.; Ihering, H. von, 2; Ilovaïski, D.; Kittl, E.; Philipp, H.; Reed, F. R. C.; Rzehak, A., 5.
Rhynchopora.—Greger, D. K., 2.
Rhynchospira.—Reed, F. R. C.
Rhyolite, Bihar.—Szadeczki, J.
——, Lake-District.—Harker, A.
——, Shropshire.—Boulton, W. S., 2.
——, Sudan.—Gentil, L.
Riazan Gov. (Russia).—Ilovaïski, D.
Ribble Estuary (Lancs).—Dickson, E.
Ribeiria.—Collie, G. L.
Ricardolydekkeria.—Ameghino, F., 2.
RICKETTS, C. *See Obit.*, Ricketts, T. M.
Ries, Franconian (Bavaria).—Knebel, W. von.
Rikuzen (Japan).—Yokoyama, M.
Rimac R. (Peru).—Elmore, T.
Rimkin Paiar (Himalayas).—Nœtling, F., 3.
Ringe Valley (Saxony).—Credner, H., 2.
Ringicula.—Dall, W. H.
Rio Grande, State of (Brazil).—Scott, H. K., 2.
Ripafratta (Tuscany).—Aloisi, P.
Ripple-marks.—Cuthbertson, G.; Hunt, A. R., 2 & 3; Martin, D., 1 & 2.
Rissoa.—Seguenza, L.
River-robbing.—Bowman, I.; Carter, W. L.
——, submerged Canadian pre-Glacial.—Poole, H. S., 3.
—— -terraces, Rumania.—Martonne, E. de, 2.
—— -variations.—Bowman, I., 2.
Rivers, Belgium.—Cornet, J.
Rivoli (Piedmont).—Capeder, G.
Road-metal, Wisconsin.—Buckley, E. R.
Roads, Glen Roy parallel.—Dukes, T. A.
ROBERTS, I. *See Obit.*, Anon., 7.
Roche du Breuillet, La (Seine-et-Oise).—Janet, L.

Rock-classification.—Grabau, A. W., 2; Iddings, J. P.
—— decay.—Calderón, S.; Duparc, L., 3; Lakes, A., 7; Schwarz, E. H. L., 4; Upham, W., 2.
—— -discoloration in deserts.—Blake, W. P., 5.
—— -elasticity.—Kusakabe, S.
—— -erosion, Corsica.—Bonney, T. G.; Lake, P., 2; Tuckett, F. F.
—— -flow.—Cope, T. H.
—— -folding, Mexico.—Blake, W. P., 4.
—— -pressure at great depths.—Martin, G.; Parsons, C. A.
—— ——, veins &.—Lakes, A., 7.
—— -salt, optical properties of.—Dudenhausen, H.
—— ——, plasticity of.—Rinne, F., 2.
—— -sections, microscopic.—Wright, F. E.
Rocks, analysis of.—Kaiser, E.; Washington, H. S., 1–3.
——, average composition of.—Clarke, F. W., 2.
——, origin of.—Ford, L. P.; Lenarčič, J.
——, radioactivity of,—Martinelli, G.
——, volumetric composition.—Moore, C. C.
Rocky Mts. (N. Am.).—Suess, E., 3.
Rœmeroceras.—Hyatt, A.
Rofna district (Grisons).—Rüetschi, G.
Roker (Durham).—Abbott, G.
Rombolo, Monte (Tuscany).—Ristori, G.
Rome (Italy).—Agamennone, G., 2; Angelis d'Ossat, G. de, 3; Martinelli, G.; Meli, R., 1, 3, & 4; Millosevich, F., 2; Moderni, P.; Portis, A.; Sabatini, V.; Stefani, C.; Trabucco, G.
Romney Formation, Maryland.—Prosser, C. S., 2.
Rosebery (Tasm.).—Waller, G. A., 2.
Rossano (Calabria).—Stefano, G. di, 2 & 3.
Rossberg massif (Vosges).—Schumacher, R.
Rossland (B.C.).—Barber, W. B.; Macbride, R.
Ross-shire (Scotland).—Murray, Sir John, 5; Peach, B. N., 3.
Rostellaria.—Ihering, H. von.
Rothamsted (Herts).—Woodward, H. B., 6.
Rothenbach (Bohemia).—Liebus, A.
Rothenkamp (Brunswick).—Wollemann, A.
Rotuma I. (Pacific).—Gardiner, J. S.
Roudaireia.—Grossouvre, A. de.
Round Lake (Ont.).—Bolton, L. L.
Roy, Glen. *See* Glen Roy.
Rübeland (Harz).—Blasius, W., 1 & 3.
Rubislaw (Aberdeen).—Anon., 24.
Rudistæ, Cretaceous.—Pâquier, V.; Parona, C. F.
Rugosa, morphology of the.—Bernard, H. M.; Yakovlev, N., 4.
Rumania.—Bergeron, J., 2; Martonne, E. de, 1–3; Montessus de Ballore, F. de, 4; Poni, P.; Sevastos, R.; Simionescŭ, J., 1 & 2; Simionescŭ, J. T.; Teisseyre, W., 3; Toula, F.
Rupshu (Himalayas).—Hayden, H. H.
Russia (S.).—Bogachev, V., 1 & 2.
——. *See also* Donetz, Gold, &c.
Russian Polar Expedition.—Anon., 11; Schmidt, F., 1 & 2.
Rustenburg (Transvaal).—Jorissen, E.
Rutile.—Lincio, G.
RUTLEY, F. *See Obit.*, Anon., 8; Judd, J. W., 2; Woodward, H. B., 3.
Rysedorph Hill (N.Y.).—Clarke, J. M., 12.

Saarbrücken (Rh.-Pruss.).—Van Werveke, L.
Sabanea.—Seguenza, L.
Saccocoma.—Walther, J., 3.
Sagrine.—Schubert, R. J., 2.
Sahara (N. Africa).—Foureau, F., 1 & 2; Haug, É., 4; Sarthou, J.
St. Abbs' Head (Berwick).—Goodchild, J. G., 4.
—— Canzian (Trieste).—Marinitsch, J.
—— Gaudens (Hautes-Pyrénées).—Carez, L., 3.
—— Gotthard Massif.—Delebecque, A., 2; Kœnigsberger, J.
—— Joachim Valley (Bohemia).—Andrimont, R. d', 2; Stěp, J.
—— John Group, New Brunswick.—Matthew, G. F.
—— Joseph (Mo.).—Owen, L. A.
—— Lawrence, pre-Glacial river in Gulf of.—Poole, H. S., 3.
—— Lawrence Valley (N. Am.).—Chalmers, R.
—— Louis Exhibition.—Bauerman, H.
—— Louis (Senegambia).—Meunier, S., 2.
—— Minver (Cornwall).—Fox, H.
—— Pierre (Martinique) ruins.—Lacroix, A., 3.
—— Saturnin (Maine-et-Loire).—Bigot, A., 2.
—— Sol-Belcastel (Lot).—Viré, A.
—— Vincent (W. I.).—Dunstan, W. R., 2; Hovey, E. O.; Russell, I. C.; Sapper, K., 3.
Sal R. (S. Russia).—Bogachev, V., 2.
Salcombe (Devon).—Ussher, W. A. E., 2.
Salicinium.—Pampaloni, L.
Salina Epoch.—Kraus, E. H.
Salinas Valley (Cal.).—Hamlin, H.
Salinity, Oolitic water.—Fischer, W. W.
——, well-water.—Stella, A., 2; Taramelli, T., 3.
Salisbury (Wilts).—Hughes, T. McK., 2.
Salmian (Liége).—Lohest, M., 4.
Salt-basins, Germany.—Chelius, C., 3; Ochsenius, C., 5; Van't Hoff, J. H., 1–6; Zimmermann, E.
—— ——, plants &.—Ochsenius, C., 3.
—— -crystals.—Sommerfeldt, E.

Salt, Dax.—Stuart-Menteath, P. W., 2.
—— deposits, origin of.—Fairchild, H. Le R., 3.
——, Kansas.—Crane, W. R.
Salt Lake (Utah).—Talmage, J. E.
Salt, Meurthe-et-Moselle.—Bailly, L.
——, Mexico.—Philippe, L.
——, minerals in.—Hornung, F.
—— mining.—Brough, B. H.
——, Nigeria.—Henry, T. A., 6.
——, oceanic deposits &.—Van't Hoff, J. H., 1-6.
Salt Range (Punjab).—Blake, G. S., 2; Grundy, J., 7 & 10; Koken, E.; Nœtling, F., 2 & 4.
Salt, Rumania.—Teisseyre, W., 3.
——, Sicily.—Andrée, K.
——, United States.—Eckel, E. C., 4; Emmons, S. F., 4; Struthers, J., 9.
——. *See also* Potash, Rock-salt, &c.
Saltness, cause of Dead Sea.—Ackroyd, W.
Saltpetre, Chile. — Ochsenius, C., 2; Semper, —.
Salvador (Central Am.).—Sapper, K., 2 & 4.
Salzkammergut (Austria).—Fugger, E.; Haug, E., 5.
Samarskite.—Lincio, G., 2; Tchernik, G. P.
Samoan Is. (Pacific).—Kaiser, E., 3; Schlosser, M., 3; Weber, M.
San Giovanni (Apulia). — Checchia-Rispoli, G., 3.
—— José, Tamaulipas (Mex.).—Finlay, G. I.
—— Juan Mts. (Colo.).—Howe, E.
—— Marcel (Piedmont).—Colomba, L.
—— Miguel Tololapa (Mex.).—Hall, C. E.
—— Pedro (New Mex.).—Yung, M. B.
—— Piero in Campo (Elba).—Achiardi, G. d', 3 & 4.
Sand, analyses of fluviatile.—Reade, T. M., 2.
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'Sand-roses' from Sahara. — Sarthou, J.
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Sands, New Jersey.—Kuemmel, H. B.
——, Orléanais granitic.—Dollfus, G. F., 3.
——, Ougrée.—Questienne, P., 3.
——, size-scale for.—Atterberg, A.
Sandstone-dykes.—Newsom, J. F.
Sandstones, analyses of United States.—Clarke, F. W., 2.
——, Condroz Devonian.—Destinez, P., 2.
——, N.Y. Devonian.—Dickinson, H. T.
——, quarrying.—Brough, B. H.
——, saccharoidal.—Broadhead, G. C., 3.
——, Vosges Mts.—Noël, C.
——, Yorkshire Triassic.—Kaye, J. R.
Sandusky River (U.S.A.).—Flynn, B. H.
Sangir (D. E. I.).—Buecking, H., 3.
Sangregrande (Trinidad).—Guppy, R. J. L., 2.
Sanguinolites.—Hind, W., 2.
Sankaty Head (Nantucket).—Cushman, J. A., 3.
Santa Cruz (Patagonia).—Brown, B.
—— Cruz Mts., Mateo Co. (Cal.).—Hæhl, H. L.
—— Maria volcano (Guatemala).—Bœse, E., 4.
Santerno R. (Emilia).—Sangiorgi, D.
Sapphire-rock, Madras Pres.—Middlemiss, C. S.
Sarajevo (Bosnia).—Katzer, F.; Kittl, E.
Saratoga Co. (N.Y.).—Prosser, C. S.
Saratov Gov. (Russia).—Archangel, A. D.; Pavlov, A. P., 2.
Sardinia, I.—Lovisato, D., 1 & 2; Pelloux, A.; Rimatori, C.; Tornquist, A., 2.
Sardinius.—Hay, O. P.
Sarsen-stones.—Holmes, T. V., 2 & 3; Monckton, H. W., 8; Spicer, Rev. E. C.
Sashalom (Hungary).—Lœrenthey, E., 4.
Saskatchewan District (Canada). — Dowling, D. B.; Tyrrell, J. B.
Saturnalis.—Squinabol, S., 3.
Saussurite.—Grubenmann, U.; Piolti, G.
Savalle, E. *See Obit.*, Lennier, G.
Savoy (France).—Douxami, H.; Haug, E., 2; Kilian, W., 2 & 3.
Saxony.—Beck, R., 1-3; Bergt, W., 1 & 2; Credner, H., 1 & 2; Dalmer, K., 1 & 2; Dammer, B.; Gæbert, C., 1 & 2; Kæstner, M.; Newsom, J. F.; Pelz, A.; Weise, E.; Wuest, E.
——. *See also* Silesia.
Scalaria.—Crema, C.; Dollfus, G. F., 5.
Scania (Sweden).—Calker, F. J. P. van; Tœrnquist, S. L.
Scaphiocrinus.—Fraipont, J.
Scaphites.—Steinmann, G., 3.
Scaphopoda, Jurassic.—Allen, H. A.
Scarborough (Yorks).—Fox-Strangways, C.; Rœchling, H. A.
Schauinsland (Baden).—Lang, I.
Scheelite.—Habich, E. A. V. de.
Schelde R. (Netherlands). — Gosselet, J.
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Schists, crystalline.—Grubenmann, U., 2.
——, Loch-Lomond. — Cunningham-Craig, E. H.
——, Madras.—Wetherell, E. W.
——, Mysore.—Slater, H. K.
——, New York City.—Julien, A. A.
——, Tuscany.—Aloisi, P.
Schizaster.—Lambert, J.; Tokunaga, S.; Tornquist, A., 1 & 3.
Schizoblattina.—Sellards, E. H.
Schizograptus.—Tœrnquist, S. L.

Schizolite.—Bœggild, O. B.
Schizoneura.—Zeiller, R., 2.
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Schizotreta.—Ruedemann, R.
Schlaggenwald (Bohemia).—Hoffmann, J., 1 & 2; Slavík, F., 3.
Schleswig-Holstein (Germany).—Gagel, C., 2.
Schlœnbachia.—Lasswitz, R.
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Schmidtella.—Clarke, J. M., 12.
Schneeren Moors (Hanover).—Hoyer, W., 3.
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Schriesheim (Hesse).—Harmann, P.
Schuchertella.—Girty, G. H., 4.
Schuls (Grisons).—Grubenmann, U.
Schwarzenberg (Erzgebirge).—Beck, R.
Schwarzwald (Baden).—Brombach, F.
Schwaz (Tyrol).—Isser Gaudententhurm, M. von; Ohnesorge, T.
Science, religion &.—Allen, W.
Sciurus.—Matthew, W. D.
Sclerorhynchus.—Hay, O. P., 2.
Scolithus.—Delgado, J. F. N.
Scorpion, Carboniferous.—Baldwin, W., 1 & 2.
Scotland, Central, raised beaches.—Munro, R., 2.
——, coast-changes.—Parkinson, J.
——, gold.—Maclaren, J. M.
——, lochs of.—Johnson, T. N., &c.; Murray, Sir John, 1–5.
——, mines.—Atkinson, J. B., 1–3; Foster, Sir Clement Le N.
——, Old Red Sandstones.—Goodchild, J. G.
——. *See also* Coalfields, Perth, &c.
'Scotia,' voyage of.—Pirie, J. H. H.
Screes, Monte Avane.—Ugolini, R.
Scrignac (Britanny).—Brun, P. de.
Scylacosaurus.—Broom, R.
Sea-floor pebbles, Greenland (E.).—Bœggild, O. B., 2.
Sea-water, carbonic acid in.—Krogh, A.
—— ——, leaching by.—Macallum, A. B.
Seas, N.E. American Palæozoic.—Ulrich, E. O., 2.
Seattle (Wash.).—Upham, W., 6.
Secka District (Tobolsk).—Ilovaïski, D., 2.
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—— ——, classification of.—Grabau, A. W., 2.
Seeds of Carboniferous plants.—Arber, E. A. N., 3; Oliver, F. W., 1 & 2.
—— of Quaternary plants.—Reid, C.
Seifen (Westphalia).—Drevermann, F., 2.
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Seis Mt. (Tyrol).—Broili, F., 3; Waagen, L.
Seismograms, Tokyo.—Imamura, A., 1 & 3.
Seismographs.—Contarini, M.; Mazelle, E.; Omori, F., 1 & 2.
Seismological Congress, 1903.—Rudolph, E.
——, Investigations Committee.—Milne, J.
Seismology.—Dutton, C. E.; Guenther, S.; Sieberg, A.
——. *See also* Earthquakes.
Selenaria.—Mapleston, C. M.
Selenite.—Rinne, F., 4.
Sellinema.—Perner, J.
Seminula.—Vaughan, A.
Senegambia (W. Africa).—Meunier, S., 1–2.
Senne Valley (Belgium).—Rutot, A., 9; Simoëns, G., 3.
Senonian, Denmark.—Hennig, A.
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Sentinel-Rock (Victoria).—Deane, H.
Sequanian, Russia.—Ilovaïski, D.
Sequoia.—Penhallow, D. P.; Zeiller, R., 4.
Sereth (Rumania).—Sevastos, R.
Serle (Lombardy).—Cacciamali, G. B., 2.
Serpentine, Dillenburg.—Brauns, R.
——, Hornung Valley.—Zeleny, V.
——, Manhattan I.—Julien, A. A.
——, New Caledonia.—Glasser, E.
——, Tuscany.—Panichi, U., 2.
Serpula.—Etheridge, R., *fil.*; Rovereto, G., 4.
Serra, Monte (Italy).—Canavari, M.
Séru (Somme).—Rabelle, —.
Servia.—Cvijić, J.; Radovonov, S.; Stevanovič, S., 1 & 2.
Sesia Valley (Piedmont).—Franchi, S.; Kæch, M.
Sethocapsa, *Sethoconus*, & *Sethophormis.*—Squinabol, S., 3.
Setia.—Seguenza, L.
Sevenoaks (Kent).—Skeats, E. W., 2.
Seville (Spain).—Schmidt, C., 4.
Sévran (Seine-et-Oise).—Dollfus, G. F.
Sewerby (Yorks).—Lamplugh, G. W., 2.
Sfax (Tunisia).—Bédé, P., 2.
Shahrig (Baluchistan).—Grundy, J., 9.
Shales, chemical composition of American.—Eckel, E. C., 7.
Shantung (China).—Rinne, F., 3.
Shark R. (S. Africa).—Johnson, J. P., 5.
Shasta Co. (Cal.).—Furlong, E. L.
Shefford Mt. (Quebec).—Dresser, J. A.
Shell-reefs, Brazil.—Branner, J. C., 3.
Shiel, Loch (Scotland).—Murray, Sir John, 4.
Shimaga (Mysore).—Slater, H. K.

Shropshire.—Arber, E. A. N., 5; Blake, Rev. J. F., 2; Boulton, W. S., 2; Buckman, S. S., 5; Clarke, W.; Cobbold, E. S.; Elsden, J. V., 2; Hinde, G. J., 3; Jevons, H. S.; Woodward, A. S., 4.
Siao (D. E. I.).—Buecking, H., 3.
Siberia.—Bogdanovich, K.; Hobbs, W. H., 3; Ilovaïski, D., 2; Makeev, P. de; Peetz, H. de; Tanfelev, G.; Tolmashev, J. P.; Vuisotzki, N.; Yakovlev, N., 2.
Siderophyre.—Klein, C., 5.
Siccar Point (Berwick).—Goodchild, J. G., 2.
Sicily.—Franco, S. di; Platania, G.; Scalia, S., 1–3; Seguenza, L., 1 & 2; Silvestri, A.
Siebengebirge (Rh.-Pruss.).—Busz, K.
Siena (Tuscany).—Fucini, A.
Sighenakh (Tiflis Gov.).—Riabinin, A.
Sigillaria.—Zalesski, M. D.
Sikhim (Himalayas).—Garwood, E. J.
Silesia.—Berendt, G.; Dathe, E.; Flegel, K.; Gæbler, D.; Henrich, F., 2; Herbing, J.; Maas, G.; Michael, R.; Petrascheck, W., 3 & 5; Sachs, A.; Schwantke, A., 2; Tornau, F.
Silex-Beds, Tampa.—Dall, W. H.
Silica in igneous rocks.—Harker, A.
Silicates, melting-points of.—Dœlter, C.; 1 & 2; Vogt, J. H. L.; Vučnik, M.; Vukits, B.
Silicified wood, Martinique.—Lacroix, A., 2.
—— ——, Piedmont.—Pampaloni, L.
—— ——, Tasmania.—Arber, E. A. N., 2.
Silistria (Bulgaria).—Toula, F.
Sillimanite.—Coomáraswámy, A. K., 6.
Siluraster.—Jækel, O., 5.
Silurian, Bohemia.—Jahn, J. J., 2 & 3; Jækel, O., 5; Perner, J.
——, Carniola.—Kossmat, F., 3.
——, Cornwall.—Green, U.
——, Indiana.—Fœrste, A. F.; Kindle, E. M., 2.
——, Ludlow.—Buckman, S. S., 5; Woodward, A. S., 4.
——, New York.—Clarke, J. M., 9; Cumings, E. R.; Ruedemann, R.
——, Ontario.—Parks, W. A.
——, Pennsylvania.—Collie, G. L.
——, Podolia.—Teisseyre, W.
——, Venezuela.—Drevermann, F.
——, Victoria.—Chapman, F., 5.
Silver, Arizona.—Blake, W. P.; Church, J. A.
——, British Columbia.—Macbride, R.; Vicaire, A.
——, Carolina (N.).—Pratt, J. H.
——, Colorado.—Lakes, A., 5.
——, Cornwall, &c.—Collins, J. H.
——, Ireland.—Kinahan, G. H., 2.
——, Mexico.—Halse, E.; Ordoñez, E., 2; Salazar, L.
——, Mongolia.—Woo, Y. T.
——, Montana.—Weed, W. H., 3.
Silver, Nevada.—Emmons, S. F., 4; Spurr, J. E., 2.
——, New South Wales.—Pittman, E. F.
——, Norway.—Klockmann, F., 2.
——, Ontario.—Miller, W. G.
——, Peru.—Anon., 17; Denegri, A.; Tristan, A.
——, Queensland.—Ball, L. C., 5.
——, Tasmania.—Twelvetrees, W. H., 7–10; Waller, G. A., 2 & 5.
——, Tomsk Gov.—Peetz, H. de.
——, Tyrol.—Isser Gaudententhurm, M. von.
——, United-States production of.—Roberts, G. E.
——, Utah.—Boutwell, J. M.
Silvestrina.—Prever, P. L., 3.
Simbirsk Gov. (Russia).—Pavlov, A. P., 2.
Simplon Massif (Pennine Alps).—Schardt, H.; Stella, A.
Sinai (Palestine).—Hume, W. F.; Newton, R. B., 2.
Sind Valley (Kashmir).—Oldham, R. D., 3.
Sinemurian, Portugal.—Choffat, P.
Sinj (Dalmatia).—Faidiga, A.
Sinuites.—Perner, J.
Sioux Falls (S. Dak.).—Todd, J. E., 2.
Sivatherium.—Abel, O., 3.
Skenidium.—Rowley, R. R.
Skye, I. of (Scotland).—Harker, A., 2.
Slags.—Dœlter, C., 1 & 2; Vogt, J. H. L.; Vučnik, M.; Vukits, B.
Slates, Arkansas.—Emmons, S. F.
——, California.—Eckel, E. C., 6.
——, chemical composition of American.—Eckel, E. C., 7.
——, Ireland.—Kinahan, G. H.
——, Loch-Lomond.—Cunningham-Craig, E. H.
——, Nassau.—Kaiser, E., 4.
——, Pennsylvania.—Dale, T. N.
——, Silesia.—Schwantke, A., 2.
——, Tuscany.—Aloisi, P.
Slavonia.—Gorjanović-Kramberger, K., 1 & 2.
Sligo (Ireland).—Cole, G. A. J.; Evelyn, A. d'; MacHenry, A.; Praeger, R. L., 4.
Slocan (B. C.).—Macbride, R.
Småland lakes (Sweden).—Gustafsson, J. P.
Smerdis.—Koch, A., 4.
Smithsonite.—Bergt, W.
Snelston (Derby).—Arnold-Bemrose, H. H.
Soapstone, United States.—Pratt, J. H., 5.
Socnopœa.—Stromer, E. von, 4.
Socorro (N. Mex.).—Bagg, R. M.; Herrick, C. L.
Sodbury (Gloucester).—Reynolds, S. H.; Strahan, A., 2.
Sohland a. d. Spree (Saxony).—Beck, R., 3; Dieseldorff, A.
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——, Carboniferous plant.—Grand'Eury, —; Renault, B., 2.
——, Chalk.—Davies, A. M., 2.
——, England (N.).—Lewis, F. J.
——, France.—Delage, A.
——, German East Africa.—Kœrt, W.
——, Herts.—Woodward, H. B., 6.
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——, investigation of.—Cameron, F. K.; Hopkins, C. G.
——, plants &.—Lewis, F. J.
——, Tuscany.—Sestini, F.
——, Wisconsin.—Weidman, S.
Sokoto (Central Africa).—Bather, F. A.; Lelean, P. S.
Solagna (Venetia).—Campana, D. del.
Solecurtus.—Archangel, A. D.
Solenastræa.—Felix, J., 2.
Solenhofen (Bavaria).—Walther, J., 3.
Solenosteira.—Dall, W. H.
Somaliland (N.E. Africa).—Dacqué, E.; Newton, R. B.
Somerset.—Boulton, W. S.; Davies, H. N.; Jukes-Browne, A. J.; Martel, E. A., 12; Morgan, C. L.; Short, A. R.; Vaughan, A., 2.
Somme R. (Picardy).—Bédé, P., 5.
Sonnerata.—Lasswitz, R.
Sonninia.—Struebin, K.
Sonora (Mex.).—Angermann, E., 2.
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Sorrel, Mount (Leicester).—Rastall, R. H.
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Southport (Lancs.).—Brodrick, H., 3; Lomas, J., 4.
Southwick (Durham).—Abbott, G.
Spain.—Douvillé, R., 2; Klockmann, F., 2.
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Spangolite.—Lindgren, W., 7.
Spaniodon.—Hay, O. P.
Sparth Bottoms (Lancs).—Baldwin, W., 1 & 2.
Spatangus.—Gagel, C.
Spathella.—Hind, W., 2.
Speeton (Yorks).—Rowe, A. W.
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Sphæroma.—Remeš, M.
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Spheginascia.—Meunier, F.
Spheniopsis.—Dall, W. H.
Sphenodiscus.—Hyatt, A.
Sphenophyllum.—Scott, D. H.
Sphenotus.—Clarke, J. M., 2.
Sphyrænodus.—Koch, A., 4.
Spinosa, Monte (Tuscany).—Ristori, G.
Spirialis.—Andrussov, N.
Spirifer.—Diener, C.; Drevermann, F., 2; Guerich, G., 1 & 3; Kindle, E. M., 2; Reed, F. R. C.
Spirigera.—Philipp, H.
Spiropteris.—Potonié, H., 2.
Spiti (Himalayas).—Diener, C., 1 & 3; Hayden, H. H.; Uhlig, V.
Spitsbergen (Arctic).—Yakovlev, N., 2.
Spodumene.—Kunz, G. F.; Pratt, J. H., 2.
Spondylus.—Newton, R. B., 4; Oppenheim, P.
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——, Cretaceous.—Hinde, G. J., 2.
——, Devonian.—Clarke, J. M., 12.
——, Jurassic.—Walther, J., 3.
——, Silurian.—Clarke, J. M.
——, Tertiary.—Schuetze, E.
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Stalagmites, Durham bird-nest.—Teasdale, T.
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Stanner (Radnor).—Raw, F.
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Start Bay (Devon).—Worth, R. H.
Stassfurt (Prussia).—Brough, B. H.; Ochsenius, C., 5; Zimmermann, E.
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Stavelot (Liége).—Dewalque, G., 4; Lohest, M., 2.
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Stephanocœnia.—Rauff, H., 2.
Stephanospermum.—Oliver, F. W.
Sterculia.—Deane, H.
Stereogenys & *Sternothærus.*—Reinach, A. von.
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Stevn's Klint (Zealand).—Hill, Rev. E.; Ravn, J. P. J.
Stibarus.—Matthew, W. D.
Stichocapsa, *Stichomitra*, & *Stichophormis.*—Squinabol, S., 3.
Stigmatella.—Ulrich, E. O.
Stilbite.—Achiardi, G. d.', 3.
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STODDART Collection, Bristol Museum.—Vaughan, A.
Stoke Gifford (Gloucester).—Reynolds, S. H.
Stolzite.—Lovisato, D., 2.
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—— -reefs, Brazil.—Branner, J. C., 3.
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Storeton (Cheshire).—Lomas, J., 3.
Stormberg Mts. (Cape Colony).—Seward, A. C., 4.
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Stramberg (Moravia).—Remeš, M.
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Stromatopora, Jurassic.—Lang, W. D., 2.
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Strontian (Argyll).—Davison, C., 7.
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Strontium.—Pratt, J. H.
Strophonella.—Kindle, E. M., 2; Reed, F. R. C.
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Stylotrochus.—Squinabol, S., 3.
Styria (Austria).—Aigner, A.; Canaval, R.; Redlich, K. A.; Reibenschuh, A. F.; Wessely, C.
Subemarginula.—Dall, W. H.
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Subsidences, Fontainebleau Sands.—Bédé, P., 3.
Sudan (N. Africa).—Arsandaux, H., 1–3; Foureau, F.; Gentil, L.; Hubert, H., 4; Lacoin, L.
Sudbury (Ont.).—Coleman, A. P.
Suffolk.—Harmer, F. W.; Spiller, J.
Sula Is. (D.E.I.).—Bœhm, G.
'Sulgranees' (India).—Blanford, W. T.
Sulitjelma Mt. (Norway).—Fletcher, Rev. M.; Klockmann, F., 2.
Sulphates, decomposition of acid.—Spring, W.
Sulphur, Carrara marble with.—Manasse, E., 3.
—— deposit from mine-water.—Krusch, P.
——, Nevada.—Emmons, S. F., 4.
——, United States.—Struthers, J., 10.
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Sundgau knolls (Alsace).—Klæhn, G.
Superior, Lake (N. Am.).—Clements, J. M.; Leith, C. K.; Macco, A.; Willmott, A. B.
Surface-warping, Pennsylvanian Tertiary.—Campbell, M. R.
Surrey.—Dibley, G. E.; Gower, H. D.; Herries, R. S.; Hinde, G. J.; Hogg, A. J.; Holmes, W. M.; Latham, B.; Monckton, H. W., 7; Roberts, N. F., 1 & 2; Whitaker, W.; Wright, W.
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Sus.—Schlosser, M., 2.
Sussex.—Abbott, W. J.; Oliphant, F. H.; Pearson, R.; Woodward, H. B., 7.
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Sutneria.—Loriol, P. de.
Swanscombe (Kent).—Stopes, C.
Sweden, ochre-deposits.—Moberg, J. C.
——, pegmatite.—Elsden, J. V., 3.
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Swedish Antarctic Expedition.—Nordenskjœld, O.
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——, ——, 1902 & 1903.—Sarasin, C., 1 & 2.
——, glacial periods.—Pilgrim, L.; Schulz, A.
——, glaciers.—Forel, F. A., 1 & 2.
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——, later upheavals.—Salomon, W.
——, peat-bogs.—Frueh, J., 3.
Sydney (N.S.W.).—Andrews, E. C.
Syenite, Aar massif.—Weber, F.
——, Cameroons.—Esch, E. von.
——, corundum in.—Lacroix, A.
——, Kishengarh.—Vredenburg, E.
——, Madagascar.—Lacroix, A., 7.
——, Transvaal.—Molengraaff, G. A. F., 5.
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Synechodus.—Leriche, M.
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Syringodendron.—Zalesski, M. D.
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Tagliacozzo (Abruzzi).—Lupi, A.
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Tailfer (Namur).—Dorlodot, L. de.
Takatea, Cape Colville Penins. (N.Z.).—Mackay, A.
Talaur (D.E.I.).—Buecking, H., 3.
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——, United States.—Pratt, J. H., 5.
Taliabu (D.E.I.).—Bœhm, G.
Taman Peninsula (Russia).—Andrussov, N.
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Tanganyika, Lake (Equat. Africa).—Hudleston, W. H.
Tapes.—Laskarev, V.
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Tara Valley (Montenegro).—Vinassa de Regny, P. E., 3.
Taramellia.—Seguenza, L.
Tarbes (Hautes-Pyrénées).—Carez, L.
Tarija (Bolivia).—Nordenskjoeld, E.
Tarkastad (Cape Colony).—Broom, R., 6.
Tarnopol (Galicia).—Teisseyre, W.
Tasmania.—Arber, E. A. N., 2; Coghlan, T. A.; Dennant, J., 4; Gregory, J. W., 4; Legge, W. V.; Pettard, W. F.; Twelvetrees, W. H., 1–10; Wallace, W. H., 1 & 2; Waller, G. A., 1–5.
Tatra Mts. (Hungary).—Limanovski, M.
Tauern, Hohe (Tyrol).—Termier, P., 7.
—— Tunnel (Styria).—Becke, F.
Taunus (Hesse).—Buecking, H.; Reinach, A. von, 2.
Tay Basin (Scotland).—Coates, H.; Murray, Sir John, 2; Peach, B. N., 2.
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Teign Valley (Devon).—Jukes-Browne, A. J., 2; Lowe, H. J.; Somervail, A., 2.
Teinostoma.—Dall, W. H.
Tektite.—Brezina, A., 2.
Telerpeton.—Boulenger, G. A., 3.
Tellina.—Archangel, A. D.; Dall, W. H.; Dollfus, G. F., 5; Dreger, J.; Jensen, A. S., 2; Oppenheim, P.
Tellinomya.—Clarke, J. M.
Temerest (Hungary).—Schafarzik, F.
Témir-Khan-Choura (Turkestan).—Kalitski, K.
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Tennessee (U.S.A.).—Eckel, E. C., 2 & 3; Hayes, C. W., 6; Keith, A., 2 & 3.
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Teraspis.—Clarke, J. M., 12.
Terebra.—Dall, W. H.
Terebratella.—Ihering, H. von.
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Terlingua (Texas).—Moses, A. J., 2.
Terlinguaite.—Gaubert, P., 6; Moses, A. J., 2.
Terrace-plains, New Mexico.—Herrick, C. L., 2.
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——, Inn Valley.—Ampferer, O., 2.
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——, Alaska.—Emerson, B. K., 3.
——, Algeria.—Ficheur, E.; Lamothe, L. de,
——, Apulia.—Checchia-Rispoli, G., 3–5.
——, Aude.—Doncieux, L.
——, Austria (Lr.).—Fuchs, T., 2.
——, Baden.—Thuerach, H., 2.
——, Bavaria.—Walther, J., 3.
——. Belgium.—Leriche, M., 2; Rutot, A., 9.
——, Britanny.—Dollfus, G. F., 4.
——, Burma.—Pilgrim, G. E., 2.
——, California.—Merriam, J. C., 2.
——, Cameroons.—Esch, E. von.
——, Cornwall.—Reid, C., 2.
——, Croatia.—Gorjanović-Kramberger, D., 1 & 2.
——, Dalmatia.—Dainelli, G.
——, Egypt.—Barron, T.; Oppenheim, P.
——, Florida.—Dall, W. H.; Schuchert, C.
——, Galicia.—Wójcik, K.
——, Galician Podolia.—Teisseyre, W.
——, Greenland.—Ravn, J. P. J., 2.
——, Hesse.—Reinach, A. von, 2.
——, Hungary.—Halaváts, G., 2; Lœrenthey, E., 1–4.
——, Languedoc.—Roman, F.
——, Limerick.—Reid, C., 3.

Tertiary, Madagascar.—Lemoine, P.; Tornquist, A.
——, Maine-et-Loire.—Bigot, A., 2.
——, Mexico.—Hall, C. E.
——, Montenegro.—Nelli, B.
——, Nice.—Depéret, C., 2.
——, Nigeria.—Newton, R. B., 2.
——, Nord.—Leriche, M., 5.
——, Normandy.—Cossmann, M., 4.
——, Paris Basin.—Leriche, M., 2.
——, Rome.—Trabucco, G.
——, Russia. — Archangel, A. D.; Faas, A.; Laskarev, V.; Michaelovski, G. P.
——, Senegambia.—Meunier, S., 1 & 2.
——, Sicily.—Checchia-Rispoli, G., 2; Scalia, S., 1 & 3.
——, Silesia.—Berendt, G.; Maas, G.
——, Sinai.—Hume, W. F.
——, Sokoto.—Bather, F. A.; Lelean, P. S.
——, Somaliland.—Dacqué, E.; Newton, R. B.
——, Switzerland. — Kissling, E.; Schalch, F., 2; Stehlin, H.
——, Texas.—Gidley, J. W., 3.
——, Turkestan.—Kalitska, K.
——, Turkey in Europe.—English, T.; Newton, R. B., 4.
——, Victoria. — Dennant, J., 1–4; Pritchard, G. B.
——, Vienna Basin.—Handmann, R., 2; Mayer-Eymar, C.
——, Würtemberg.—Kranz, W.
Tessenberg (Berne).—Baumberger, E., 2.
Testudo.—Andrews, C. W., 3.
'Tethys Ocean.'—Suess, E., 2.
Tetracanthellipsis.—Squinabol, S., 3.
Tetragraptus.—Tœrnquist, S. L.
Teutoberg Forest (Germany).—Mueller, G.
Texas (U.S.A.).—Adams, G. I.; Broili, F., 2; Gidley, J. W., 3; Hayes, C. W., 4 & 9; Hill, B. F.; Hill, R. T.; Iddings, J. P., 3; Lasswitz, R.; Moses, A. J., 2; Neumayer, L.; Weed, W. H., 2.
Textularia.—Chapman, F., 2; Fornasini, C.
Thale (Harz).—Brandes, G.
Thalattosaurus.—Merriam, J. C., 3.
Thames Valley.—Hinton, M. A. C., 1–3; I'Anson, J. C.; Johnson, J. P., 1–4, & 8; Treacher, L.
—— ——, gravels on the north side of.—Irving, Rev. A., 3.
Thamnocladus.—White, D.
Thanet, I. of.—Kidner, H.
Thayngen (Schaffhausen).—Nuesch, J., 2.
—— cave. *See* Kesslerloch.
Thenardite.—Vredenburg, E., 2.
Theocampe, Theoconus, Theocorys, & *Theodiscus.*—Squinabol, S., 3.
Theosodon.—Ameghino, F., 2.
Theriodontia, S. African—Broom, R., 1–7 & 10.
Thermal waters, Cape Colony.—Schwarz, E. H. L., 2.
—— ——, Gastein.—Mache, H., 1 & 2.
—— ——, Nassau,—Henrich, F.
—— ——, ore-deposits &.—Kemp, J. F., 1 & 2; Weed, W. H., 6.
—— ——, origin of.—Delkeskamp, R.
—— ——, Styria.—Aigner, A.
—— ——, temperatures of. — Dienert, F.
—— ——, Transcaucasus.—Martel, E. A., 7 & 9.
—— ——, Tuscany.—Stefani, C. de, 3.
—— ——, Zambesi Valley.—Ferguson, D.
Thiede (Brunswick).—Koch, V. von; Nehring, A.
Thoatherium.—Ameghino, F., 2.
Thonon-les-Bains (Haute-Savoie). — Douxami, H.
Thoracoceras.—Clarke, J. M., 12.
Thorianite.—Coomáraswámy, A. K., 8; Dunstan, W. R., 6.
Thorite.—Coomáraswámy, A. K., 8.
Thorium-mineral, new.—Henry, T. A., 7; Ramsay, Sir William.
Thracia.—Esch, E. von.
Thurgau (Switzerland).—Frueh, J.
Thuringia (Germany).—Kaiser, E., 2; Walther, J.
Thuringite.—Zalinski, E. R.
Tian-Shan (Turkestan).—Davis, W. M., 2.
Tibidabo Mt. (Barcelona).—Almera, J.
Tichorietzkaya (Ekaterinoslav Gov.).—Sokolov, N. A.
Ticino (Switzerland). — Klemm, G.; Kœnigsberger, J.
Tiflis Gov. (Russia).—Riabinin, A.
Tilt, Glen (Perth).—Barrow, G.
Timassanine (Sahara).—Foureau, F., 2.
Tin, Alaska.—Brooks, A. H., 2; Collier, A. J., 3; Emmons, S. F., 4.
——, Australia (W.).—Cameron, W. E., 2.
——, Burma & Palanpur.—Holland, T. H.
——, Cornwall.—Macalister, D. A.
——, Lozère.—Guédras, M.
——, New South Wales.—Pittman, E. F.
——, Nigeria (N.).—Dunstan, W. R., 3.
——, Queensland.—Ball, L. C., 5.
——, Tasmania.—Twelvetrees, W. H., 7–10; Waller, G. A., 4.
——, Texas.—Weed, W. H., 2.
——, Transvaal.—Anon., 18.
——, Victoria.—Herman, H., 2.
Tinguaite, Madagascar.—Lacroix, A., 7.
Tippecanoe Valley (Ind.).—Breeze, F. J.
Tissotia.—Esch, E. von.
Titaniferous olivine.—Brugnatelli, L., 1 & 2.
Titanite.—Slavík, F.
Titanosuchus.—Broom, R., 3 & 4.
Titanothere-Beds.—Loomis, F. B.
Tivela.—Dall, W. H.
Tmetoceras.—Beck, H.

Toarcian, Worcestershire.—Buckman, S. S., 3.
Tobago (W.I.).—Guppy, R. J. L.
Tobolsk Gov. (Siberia).—Ilovaïski, D., 2.
Tochi R. (N.W. India).—Crick, G. C., 8.
Tödi Mts. (Switzerland).—Weber, F.
Tœchomya.—Clarke, J. M., 2.
Tokyo (Japan).—Imamura, A., 1 & 3.
Tolfa (Rome).—Millosevich, F., 2.
TOLL, Baron E. VON, Polar Expedition. —Anon., 11; Schmidt, F., 1 & 2.
Tomakovka (Ekaterinoslav Gov.). — Michaelovski, G. P.
Tombstone (Ariz.). — Blake, W. P.; Church, J. A.
TOMES, R. F. *See Obit.*, Richardson, L.. 2.
Tomsk Gov. (Siberia). — Peetz, H. de; Tanfelev, G.
Tonalite-gneiss, Brixen. — Petrascheck, W., 2.
Tongking (Indo-China).—Hubert, H., 2 ; Zeiller, R., 2.
Tonopah (Nev.).—Emmons, S. F., 4; Lakes, A., 4; Spurr, J. E., 2.
Topaz.—Kunz, G. F.
Toqueville (Utah).—Huntington, E.
Torbay (Devon).—Hunt, A. R.
Tornatina.—Dall, W. H.
Torpedo.—Esch, E. von.
Torre Valley (Piedmont).—Piolti, G.
Torrite hot-springs, Garfagnana (Tuscany).—Stefani, C. de, 3.
Tortilla.—Perner, J.
Tortoises, Quaternary.—Fournier, G.
——, Tertiary land-. — Andrews, C. W., 3.
Totland Bay (I. of Wight).—Kennard, A. S., 2.
Toucasia.—Pâquier, V.
—— -limestone, I. of Capri.—Parona, C. F., 3.
Toura R. (Urals).—Vuisotzki, N.
Touraine (France).—Dollfus, G. F., 3.
Tourmaline.—Hamberg, A.; Kunz, G. F.; Schaller, W. T.; Sterrett, D. B.
Tourmaliniferous veins, Elba.—Achiardi, G. d', 3.
Toxodon.—Ameghino, F.
Trachodon.—Lucas, F. A., 5.
Trachyaspis.—Reinach, A. von.
Trachyte, Cameroons.—Esch, E. von.
——, Cornwall.—Pearce, R.
——, Hawaii Is.—Cross, W., 2.
——, Sudan.—Arsandaux, H., 2.
——, Tuscany.—Lotti, B.
Trachytypotherium.—Ameghino, F., 2.
Tracks, Carboniferous crustacean (?).—Etheridge, R., *fil.*, 3.
Tragocerus.—Schlosser, M., 2 & 3.
Tragoreas.—Schlosser, M., 3.
Transcaucasia (Asia Minor).—Nicou, P.
Transennella.—Dall, W. H.
Transvaal (S. A.).—Anon., 18; Bleloch, W.; Corstorphine, G. S., 1 & 3; Dœrffel, D., 1–4; Draper, D., 1 & 2; Fourmarier, P., 3; Hall, A. L., 1–3; Hatch, F. H., 1–6; Higgs, M. S., 1 & 2; Holmes, G. G.; Horwood, C. B., 1 & 2; Johnson, J. P., 6 & 7; Jorissen, E.; Kuntz, J., 1 & 3; Kynaston, H., 1 & 2; Leslie, T. N., 7; Liebenam, W. A.; Marriott, H. F.; Mellor, E. T., 1–3; Molengraaff, G. A. F., 1–5; Rathbone, E. P.; Sawyer, A. R., 2–4; Swinburne, U. P.; Weldon, H.; Wilkinson, D.; Zimmermann, J.
Transylvania (Hungary).—Pálfy, M. von, 1 & 2; Telegd, L. R. von.
Trapezium.—Cossmann, M., 3.
Traun, Lake (Upper Austria).—Fugger, E.
Tredwell (Alaska).—Kinzie, R. A.
Tree, silicified.—Arber, E. A. N., 2.
—— -trunks, Namur coalfield. — Stainier, X.
Trélaze (Maine-et-Loire).—Bigot, A.
Trélon (Nord).—Leriche, M., 5.
Tremanotus.—Perner, J.
Tremataspis.—Jækel, O., 4.
Trépail (Marne).—Martel, E. A., 2.
Trepostomata.—Urich, E. O.
Tricænaspis.—Hay, O. P.
Trias, Arizona.—Lucas, F. A., 2.
——, Baluchistan.—Vredenburg, E., 4.
——, Bosnia.—Katzer, F., 4; Kittl, E.
——, Carniola.—Kossmat, F., 2.
——, classification of.—Eck, H.
——, Devon.—Irving, Rev. A.; Somervail, A., 1 & 3.
——, Germany. — Brandes, G.; Brombach, F.; Eck, H.; Henkel, L., 2; Picard, E.; Walther, J.
——, Greece.—Renz, C., 3.
——, Himalayas.—Nœtling, F., 3.
——, New Mexico.—Keyes, C. R., 3.
——, Piedmont.—Franchi, S.
——, raindrop markings in. — Spicer, Rev. E. C., 2.
——, Salt Range.—Nœtling, F., 2.
——, Sardinia.—Tornquist, A., 2.
——, Spitsbergen.—Yakovlev, N., 2.
——, Staffordshire.—Thompson, B.
——, Texas.—Adams, G. I.
——, Tyrol. — Philipp, H.; Waagen, L.
——, Victoria.—Etheridge, R., *fil.*, 2.
——, Yorkshire,—Kaye, J. R.
——. *See also* Keuper, &c.
Triassic conglomerate, Nelson.—Marshall, P.
—— pebbles, in Pomeranian gravel.—Linstow, O. von.
Triceratops.—Lull, R. S.
Tricolocaspa.—Squinabol, S., 3.
Tridymite.—Schwantke, A., 2.
Trieste (Austria).—Marinitsch, J.; Mazelle, E., 2.
Trigeria.—Drevermann, F., 2; Reed, F. R. C.
Trigonia.—Yokoyama, M.
Trigonocarpus.—Pellati, N.
Trigonostylops.—Ameghino, F.
Trilobites, Cambrian.—Delgado, J. F. N., 2; Matthew, G. F., 2.
——, Carboniferous.—Schumacher, R.

Trilobites, Devonian. — Harbort, E.; Lake, P.; Mailleux, E.
——, Ordovician.—Collie, G. L.
——, Silurian.—Agnus, —; Clarke, J. M., 12; Drevermann, F.; Hitchcock, C. H.; Kindle, E. M.; Reed, F. R. C., 3 & 4; Wiman, C.
Trimoceras.—Kindle, E. M., 2.
Trinidad (W.I.).—Blake, G. S.; Dunstan, W. R.; Guppy, R. J. L., 2–4; Henry, T. A., 1 & 5; Louis, H.; Struthers, J. C.
Trionyx.—Reinach, A. von.
Trioolepis.—Zeiller, R., 2.
Tripilidium.—Squinabol, S., 3.
Tripleurocrinus.—Wood, E., 2.
Triplite.—Hamberg, A.
Tripoli, Arizona.—Blake, W. P., 2.
——, Cantal.—Pagès-Allary, J.
Tripoli (N. Africa).—Vinassa de Regny, P.
Trirachodon.—Broom, R., 10.
Tristanites.—Deane, H.
Tristylotus.—Parks, W. A., 2.
Triticites.—Girty, G. H., 3.
Trochocyathus.—Dennant, J., 3.
Trochodiscus.—Squinabol, S., 3.
Trochus.—Cossmann, M., 2; Laskarev, W.
Trombetas R. (Brazil).—Clarke, J. M.
Trong-Loc (Annam).—Hubert, H., 3.
'Trou de l'Abîme' (Couvin).—Mailleux, E., 2.
Trou-de-Souci (Côte-d'Or).—Martel, E. A., 11.
Trumbull (Conn.)—Hobbs, W. H., 2.
Tryblidium.—Perner, J.
Trypanostylus.—Picard, A.
Tübingen (Würt.) Geological Institute. —Koken, E., 2.
—— University Museum.—Sommerfeldt, E., 2.
Tufa, calcareous. *See* Calcareous.
Tufaceous deposits, Totland Bay.—Kennard, A. S., 2.
Tuff, Weston-super-Mare.—Boulton, W. S.
Tullstorp (Scania).—Holst, N. O., 2.
Tumbes (Peru).—Braun, J. M.; Ugarteche, M. de.
Tumkur (Mysore).—Wetherell, E. W.
Tundra, America (N.). — Tyrrell, J. B., 2.
Tungsten, Connecticut.—Hobbs, W. H., 2.
——, United States occurrence.—Pratt, J. H., 4.
——. *See also* Scheelite.
Tunis (Africa).—Bédé, P., 2; Canu, F., 2; Priem, F.
Tunnel, Bosrück.—Geyer, G.
——, Simplon.—Schardt, H.
——, Tauern.—Becke, F.
——, Wochein.—Kossmat, F.
Turbo.—Pritchard, G. B.
Turkestan (Asia). — Bronyaikov, M.; Davis, W. M., 2 & 3; Kalitska, K.; Weber, V.
Turkey in Europe.—Cvijič, J.; English, T.; Flett, J. S.; Holland, R.; Newton, R. B., 4.
Turquoise.—Kunz, G. F.
Turrilepas.—Ruedemann, R.
Turrilites.—Lasswitz, R.; Yabe, H.
Turritella.—Crema, C.; Dollfus, G. F., 5; Esch, E. von; Ihering, H. von; Ilovaïski, D.; Michaelovski, G. P.; Picard, E.
Turtles, Cretaceous. — Hay, O. P., 3; Wieland, G. R., 1 & 2.
——, Tertiary.—Hay, O. P., 3.
Tuscany (Italy).—Aloisi, P.; Fucini, A.; Manasse, E., 1 & 3; Ristori, G.; Sestini, F.; Stefani, C. de., 2.
Tver Gov. (Russia).—Sinzov, I.
Tylocrinus.—Wood, E., 2.
Tyne R. (N. England).—Woolacott, D., 2.
Types, Gray's (J. E.).—Blanford, W. T.
——, Museum of Practical Geology.—Allen, H. A.
——, New York State Museum. — Clarke, J. M., 10.
——, of plants, refigured.—Potonié, H.
Typotherium.—Ameghino, F., 2.
Tyrol (Austria).—Ampferer, O, 1–3; Broili, F., 3; Diener, C., 4; Dœlter, C., 3; Dreger, J.; Ippen, J. A.; Kolenec, F.; Neugebauer, F.; Ohnesorge, T.; Petrascheck, W., 2; Philipp, H.; Proboscht, H.; Romberg, J., 1–4; Skeats, E. W.; Slavík, F., 2; Termier, P., 3, 4, 7, & 8; Waagen, L.; Zeiske, F.
Tzaritzin (Saratov).—Sokolov, N. A.

Uintacrinus.—Schuchert, C., 3.
Uitenhage (Cape Colony).—Broom, R., 8; Seward, A. C., 4.
Ularring (W. Austral.).—Gibson, C. G., 2.
Ulm a. D. (Würt.). — Dietrich, W.; Kranz, W.
Ulodendron.—Potonié, H., 2.
Ulu Rawas (Sumatra).—Milch, L., 2.
Um-Rileng (Assam).—Bose, P. N.
Umbotrochus.—Perner, J.
Umbria (Italy).—Verri, A.
Unakite.—Phalen, W. C., 2.
Uncinulus.—Drevermann, F., 2.
Underground temperature, coal-mines.—Hœfer, H.
——. *See also* Temperature.
Undularia.—Picard, A.
Ungava (Canada).—Low, A. P.
Ungulata, upper molars of.—Ameghino, F.
Unio.—Newton, R. B., 4; Whitfield, R. P.
Uniondale (Cape Colony).—Schwarz, E. H. L.
United States, geological atlas.—Walcott, C. D., 3.
—— ——, great plains of.—Upham, W., 3.

United States, mineral-resources.—Day, D. T.; Emmons, S. F., 1, 2, & 4.
—— ——. *See also* Devonian, Geological Survey, Gold, Iron, &c.
Unitrypa.—Cumings, E. R., 2.
Unstrut R. (Saxony).—Wuest, E.
Ural Mts. (Russia).—Duparc, L., 1 & 3; Konushevski, L., 1 & 2; Morozevich, I., 3; Mrazec, L.; Nikolaev, D.; Revostzki, E. D.; Vuisotzki, N.
Uralitization.—Duparc, L., 3.
Uraninite. — Andrimont, R. d', 2; Coomáraswámy, A. K., 6; Step, J.
Uranium-minerals.—Hoffmann, J., 1 & 2; Pratt, J. H., 4.
Uranocirtite, dehydration of.—Gaubert, P., 4.
Urdos (Basses-Pyrénées).—Carez, L., 5.
Urenchelys.—Hay, O. P., 2.
Ursus.—Praeger, R. L., 4; Reichenau, W. von; Schlosser, M., 2; Sheppard, T., 6.
Urubamba R. (Peru).—Robledo, L. M.
Usingen (Nassau).—Buecking, H.
Utah (U.S.A.).—Adams, G. I., 5; Boutwell, J. M., 2; Dean, G. H.; Dyar, W. W.; Emmons, S. F.; Huntington, E.; Jenney, W. P.; Talmage, J. E.

Vacia-Madrid (New Castile).—Puerta, G. de la.
VACOSSIN, A. *See Obit.*, Beaugrand, C.
Vag R. (Hungary).—Horusitzky, H., 3.
Valais (Switzerland).—Preiswerk, H.
Valentinite.—Pelloux, A.
Valerio, Monte (Tuscany).—Ristori, G.
VALLÉE-POUSSIN, C. L. J. X. de la. *See Obit.*, Malaise, C.
Valley, Teign.—Jukes-Browne, A. J., 2.
Valleys, Atlantic submarine.—Spencer, J. W., 1 & 3.
——, BAER's law &.—Fabre, L. A., 2.
——, Brandenburg.—Maas, G., 3.
——, Calvados.—Bigot, A.
——, Durham, &c., pre-Glacial.—Woolacott, D., 3.
——, fracture-.—Iddings, J. P., 2.
——, hanging.—Tarr, R. S.
Valvata.—Menzel, H.
Van Rhyn's Dorp (Cape Colony).—Rogers, A. W., 3.
Vanadinite.—Caballero, G. de J., 2; Lovisato, D., 2; Sigmund, A.
Vanadium-minerals.—Pratt, J. H., 4.
Vancouver I. (B. C.).—Macbride, R.; Sutton, W. J.
Varanger Fjord (Norway).—Henriksen, G.
Varanosaurus.—Broili, F., 2.
Vareš (Bosnia).—Beck, H.
Varese (Lombardy).—Taramelli, T., 2.
Värhegy (Hungary).—Koch, A., 3.
Vascoceras.—Hyatt, A.
Vascongadas (Spain).—Dufau, C.
Vaucluse (France).—Putzeys, E.
Vaud (Switzerland).—Kissling, E.
Vecchio, Monte (Sardinia).—Lovisato, D.
Vegetation, river-boulder deposits &.—Mueller, C. A., 4.
Veglia, Monte (Piedmont).—Lincio, G.
Veins, igneous rocks, water &.—Kemp, J. F., 1 & 2.
——, origin of.—Elsden, J. V., 3.
——, rock-pressure &.—Lakes, A., 7.
Vellone Torrent (Lombardy). — Taramelli, T., 2.
Vendée (France).—Cossmann, M., 3.
Venericardia.—Dall, W. H.
Venetia (Italy).—Airaghi, C.; Ochsenius, C.; Parona, C. F.; Squinabol, S., 1-4; Taramelli, T., 3.
Venezuela (S. Am.).—Drevermann, F.
Ventersdorp (Transvaal).—Hatch, F. H., 3.
Venus.—Laskarev, V.; Michaelovski, G. P.
Vereeniging (Transvaal).—Leslie, T. N.; Seward, A. C., 4.
Vermetus.—Rovereto, G., 4.
Vermilion (Minn.).—Clements, J. M., 2; Thomas, K.
Vermont (U.S.A.).—Dale, T. N., 2; Daly, R. A.
Verra Valley (Piedmont).—Zambonini, F.
Versispira.—Perner, J.
Vertebrates, evolution in time.—Woodward, H., 7.
Vertigo.—Gulick, A.
Vesdre R. (Liége).—Renier, A.
Vesuvian lava-domes.—Mercalli, G.
Vesuvianite. *See* Idocrase.
Vézère R. (France).—Cahen, A.
Viale, Monte (Venetia).—Billows, E., 2.
Viareggio (Tuscany).—Pantanelli, D., 2.
VICARY, W. *See Obit.*, Geikie, Sir Archibald, 4; Monckton, H. W., 5; Woodward, H., 3.
Vicenza (Venetia).—Taramelli, T., 3.
Victoria (Austral.).—Anderson, W. R.; Bradford, W., 1-10; Chapman, F., 1-7; Coghlan, T. A.; Deane, H.; Dennant, J., 1-4; Etheridge, R., *fil.*, 2; Ferguson, W. H.; Gregory, J. W., 1-3; Herman, H., 1-3; Howitt, A. M.; Howitt, A. W.; Hunter, S. B., 1 & 2; Kitson, A. E., 1-5; Mapleston, C. M., 1 & 2; Pritchard, G. B.; Sutherland, I. M.; Whitelaw, H. S.
——. *See also* Gold, &c.
Victoria, Mount (Tasm.).—Twelvetrees, W. H., 5.
Vielsalm (Liége).—Lohest, M., 4.
Vienna (Austria).—Depéret, C.; Hœrnes, R.; Schaffer, F. X.
—— Basin (Austria).—Abel, O.; Fuchs, T.; Handmann, R., 2; Mayer-Eymar, C.; Troll, O. von.
Vihi (Kashmir).—Oldham, R. D., 2.
Villefort (Lozère).—Guédras, M., 2.
Villefranche (Aveyron).—Thévenin, A.
Villers-aux-Tours (Liége).—Questienne, P., 2.

Villers-sur-Mer (Normandy).—Douvillé, R., 1.
Vinella.—Ulrich, E. O.
Virginia (U.S.A.).—Eckel, E. C., 4; Phalen, W. C., 2.
——, West (U.S.A.).—Dale, T. N.; Stevenson, J. J.; Tight, W. G.
Vitrella.—Geyer, —.
Vitulina.—Reed, F. R. C.
Vivianite.—Egglestone, W. M., 2; Gaubert, P., 2 & 7.
Vizagapatam (Madras).—Middlemiss, C. S.
Vlegyásza Mts. (Hungary).—Szadeczki, J.
Vogelsberg (Hesse).—Chelius, C., 3.
Vogtland (Saxony).—Bergt, W., 2.
Vola.—Dacqué, E.
Volborthella.—Karpinski, A., 2.
Volcanic activity, 1902.—Ambayrac, —.
—— cones, artificial.—Tabary, P.
—— craters, Hawaii Is.—Hitchcock, C. H., 2; Wood, E.
—— dust, Mexico.—Bœse, E., 4.
—— eruption, Arabia, 1256.—Houdas, —.
—— eruptions, origin of.—Russell, I. C., 4.
—— ——, West Indies.—Anderson, T.; Heilprin, A.; Hovey, E, O.; Lacroix, A., 5; Russell, I. C., 1, 3, & 4; Sapper, K., 3.
—— pipes, Africa (S.).—Rogers, A. W., 5.
—— plugs.—Gilbert, G. K., 3; Jaggar, T. A.; Russell, I. C., 3 & 4; Winchell, N. H., 4.
—— rocks, Borrowdale.—Walker, E. E.
—— ——. *See also* Andesite, Igneous, &c.
—— series, Witwatersrand.—Corstorphine, G. S., 2.
—— upheaval, Franconian Ries.—Knebel, W. von.
Volcano, Quenast.—Simoëns, G.
Volcanoes, America (Central).—Sapper, K., 1–4.
——, earthquakes &.—Lallemand, C.
——, experiments with mud and air-bubbles.—Martin, D., 2.
——, Guatemala.—Sapper, K., 4.
——, Hawaii.—Cross, W., 2; Hitchcock, C. H., 2; Wood, E.
——, Iceland.—Pjetursson, H.; Thoroddsen, T., 2 & 24.
——, Italy (Central).—Sabatini, V., 2.
——, Java.—Van Bosse, P.; Volz, W., 2; Wichmann, A.
——, Mexico.—Arreola, J. M.; Bœse, E., 1 & 3; Ordoñez, E., 1 & 4.
——, origin of.—Bergeron, J.; Gautier, A.; Lapparent, A. de; Lohest, M.
——, Phlegræan.—Lorenzo, G. de.
——, pre-Cambrian.—Callaway, C.
——, Rome.—Moderni, P.
——, Sumatra.—Volz, W.
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